AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. Contract ID Code	Page	Of
Cost-Plus-Fixed-Fee	1	39

2. Amendment/Modification No.	3. Effective Date	4. Requisition/Purchase Req No.	5. Project No. (If applicable)
0001	2009JAN16	SEE SCHEDULE	

6. Issued By Code W56HZV

U.S. ARMY CONTRACTING COMMAND
AMSCC-TAC-ASGD
HARMONY HUNSANGER (586)753-2202
WARREN, MICHIGAN 48397-5000
HTTP://CONTRACTING.TACOM.ARMY.MIL

EMAIL: HARMONY.HUNSANGER@US.ARMY.MIL

7. Administered By (If other than Item 6) Code

SCD PAS ADP PT

8. Name And Address Of Contractor (No., Street, City, County, State and Zip Code)

Code Facility Code

[X] **9A. Amendment Of Solicitation No.**
W56HZV-09-R-0020

9B. Dated (See Item 11)
2008DEC22

[ ] **10A. Modification Of Contract/Order No.**

10B. Dated (See Item 13)

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] **The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers**

[ ] **is extended,** [X] **is not extended.**

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing items 8 and 15, and returning 2 signed **copies of the amendments: (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.**

12. Accounting And Appropriation Data (If required)

13. THIS ITEM ONLY APPLIES TO MODIFICATIONS OF CONTRACTS/ORDERS
It Modifies The Contract/Order No. As Described In Item 14.

[ ] **A. This Change Order is Issued Pursuant To: The Changes Set Forth In Item 14 Are Made In The Contract/Order No. In Item 10A.**

[ ] **B. The Above Numbered Contract/Order Is Modified To Reflect The Administrative Changes (such as changes in paying office, appropriation data, etc.) Set Forth In Item 14, Pursuant To The Authority of FAR 43.103(b).**

[ ] **C. This Supplemental Agreement Is Entered Into Pursuant To Authority Of:**

[ ] **D. Other (Specify type of modification and authority)**

E. IMPORTANT: Contractor [ ] **is not,** [ ] **is required to sign this document and return _____ copies to the Issuing Office.**

14. Description Of Amendment/Modification (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

SEE SECOND PAGE FOR DESCRIPTION

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. Name And Title Of Signer (Type or print)		16A. Name And Title Of Contracting Officer (Type or print)	
15B. Contractor/Offeror _____ (Signature of person authorized to sign)	15C. Date Signed	16B. United States Of America By /SIGNED/ (Signature of Contracting Officer)	16C. Date Signed

Name of Offeror or Contractor:

SECTION A - SUPPLEMENTAL INFORMATION

1. The purpose of Amendment 0001 to Solicitation W56HZV-09-R-0020 is to incorporate the following clarifications and changes:

a. Section B - Supplies or Services and Prices/Costs:

(i) Section B.3.2, Funding Schedule, is revised to reflect funding as "Award - NOV 09" for the Prototype Phase and "NOV 09 - Completion of Contract" for the Refinement Phase.

b. Section C - Description/Specifications/Work Statement:

(i) The numbering within Section C.6.4, Information Assurance (IA), listed after "The Contractor shall" is revised to remove the duplicate 3. Therefore, items are now numbered one (1) through five (5).

(ii) Section C.29.9, Safety, is renumbered to C.29.8, Safety.

c. Section H - Special Contract Requirements:

(i) Section H.1.1 is revised to change the option exercise time to "no later than 225 days after contract award."

d. Section I - Contract Clause:

(i) Clause 52.217-4001, Separately Priced Option for Increased Quantity, is revised to change the option exercise time to "in any event not later than 225 days after either (i) award."

e. Section J - List of Attachments:

(i) Exhibit A, Contract Data Requirements List, CDRL A120, Block 16, Remarks is revised to reflect Attachment 15.

(ii) Exhibit A, Contract Data Requirements List, CDRL A140, Block 16, Remarks is revised to reflect Attachment 15.

(iii) Attachment 0001, GSE System Performance Specification (SPS), is revised to note an ERRATA sheet listing changes was issued via AMRDEC Safe File Exchange on 16 Jan 2009.

(iv) Attachment 0002, GSE Interface Control Document (ICD), is revised to note an ERRATA sheet listing changes was issued via AMRDEC Safe File Exchange on 16 Jan 2009.

(v) Attachment 0014, Government Overarching Contract Schedule, is revised to add Item ID 19.

(vi) Attachment 0018, GSE Hardware Allocation & Assessment Matrix, is revised to clarify power consumption units as Watt-Hours.

(vii) Attachment 0020, GSE Power Mission Profile, is revised to clarify power consumption units as Watt-Hours.

f. Section L - Instructions, Conditions, and Notices to Offerors:

(i) Section L.1.2 is revised to state "each section of the proposal shall have a reference number."

(ii) Section L.8.6 is revised to to state "Each Offeror shall submit copies of the agreement or written statement to the Contracting Officer by 30 Jan 2009."

2. Except as provided herein, all terms and conditions of Solicitation W56HZV-09-R-0020 remain unchanged and in full force and effect.

*** END OF NARRATIVE A0002 ***

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 Estimated Cost and Payment

B.1.1 Estimated Cost and Payment - Base Effort

B.1.1.1 The ESTIMATED COST for performance of the work required under this contract is stated in Section B under CLIN 0001, which shall constitute the estimated cost for the purpose of the Contract Clause hereof entitled LIMITATION OF FUNDS.

B.1.1.2 The contractor will be paid the fixed fee stated in Section B under CLIN 0001 for the performance of work under the contract and in accordance with the terms of the Contract Clause entitled FIXED FEE, FAR 52.216-8. The fixed fee together with the reimbursement of cost shall constitute full and complete consideration for the contractor's service in connection with the work required and performed under this contract.

B.1.1.3 Allowable cost shall be determined, and payment thereof shall be provided, in accordance with the Contract Clause hereof entitled ALLOWABLE COST AND PAYMENT, FAR 52.216-7.

B.1.2 Estimated Cost and Payment - Option Effort

B.1.2.1 If the Option is exercised, the OPTION ESTIMATED COST for performance of the work required under Section C.22.1 is stated in Section B under CLIN 0003.

B.1.2.2 If the Option is exercised, the contractor will be paid the fixed fee stated in Section B under CLIN 0003 for the performance of work under the Section C.22.1 and in accordance with the terms of the Contract Clause entitled FIXED FEE, FAR 52.216-8. The option fixed fee together with the option reimbursement cost shall constitute full and complete consideration for the contractor's service in connection with the work required and performed under Section C.22.1.

B.2 Payment

The contractor may submit public vouchers monthly for payment under this contract. The fee will be payable at the time of reimbursement of cost at the same rate to such cost as the total fee of this contract bears to the total estimated cost thereof, subject to any withholding pursuant to provisions of this contract.

B.3 Funding

B.3.1 The Government shall provide funds under this contract covering the estimated cost and fee hereof on an incremental basis as provided for in the following funding schedule and pursuant to the Contract Clause entitled LIMITATION OF FUNDS, FAR 52.232-22. It is estimated that the incremental amounts are sufficient for the performance of work in each of cited periods. The Government may, at its discretion, allot such funds on an incremental basis within each fiscal year. The contractor shall plan and execute the work required by this contract as to expend and/or commit funds compatible with the schedule set forth below. Whenever the contractor has reason to believe that the funds allotted to this contract for any fiscal year are either insufficient or excessive for the performance of work required in that fiscal year, the Government shall be so notified.

B.3.2 Funding Schedule

Performance Period for Techology Development (TD) Effort	Amount
Award - NOV 09 (Prototype Phase)*	$
NOV 09 - Completion of Contract (Refinement Phase)*	$_____
Total TD Effort	$

B.4 Funds Allotted. The amount of funds currently allotted to this contract is $_____.

* Revised by Amendment 0001

*** END OF NARRATIVE B0001 ***

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

SECTION C DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

PROTOTYPE PHASE

REFINEMENT PHASE

C.1 GENERAL.

C.1.1 Scope. The Contractor shall develop, fabricate, test, and deliver Ground Soldier Ensemble (GSE) systems that meet the GSE System Performance Specification (SPS) (Section J, Attachment 0001), GSE system Interface Control Document (ICD)(Section J, Attachment 0002), GSE System Software Allocation Matrix (Section J, Attachment 0019) and statement of work requirements. The Contractor is responsible for integrating the Contractor Furnished Property (CFP) (equipment and software), with Government Furnished Property (GFP) (equipment and software) onto the Soldier (Section J, Attachment 0003). This SOW covers the Technology Development Phase that is separated into two phases: Prototype Phase (first) and Refinement Phase (second). Unless explicitly stated otherwise the SOW requirements pertain to both the prototype phase and refinement phase. The terms GSE and GSE system are used interchangeably throughout the document.

The intent at the end of this contract is to demonstrate through Government developmental testing and user testing that the GSE system, is operationally suitable and operationally effective when used within an Enhanced Infantry Brigade Combat Team (E-IBCT), and / or non-FCS equipped IBCT and ready to enter low rate initial production. The Government is responsible for providing any required software and/or hardware necessary to exchange voice and data between the GSE system network and the IBCTs network(s).

C.1.2 Background. Ground Soldier is a system-of-systems that provides dismounted soldiers increased situational awareness, decreased reaction times, and reduced risk of fratricide. GSE capabilities are informed by combat experiences from the Land Warrior system. The GSE acquisition concept is to focus on providing mature technologies, that when integrated together on the Soldier minimizes the size, weight and power impacts to the Soldier while providing improved situational awareness and network connectivity capabilities at various echelon levels within an infantry brigade combat team. The Soldiers using the GSE will be predominately dismounted and occupied in enemy engagement missions. GSE modularity is desired to permit tailoring for mission requirements, allowing combat load configuration, and maintenance streamlining. The lessons learned from the Land Warrior will be leveraged to focus the GSE development, integration, and

testing activities.

C.1.3 Contractor Furnished Property (CFP). The Contractor provided GSE CFP items are listed below, and further defined in the GSE SPS and GSE System ICD:

- Computer Unit: data processor (low power, multi-speed computer)
- Computer Input/Output devices: (User interface with controls)
- Soldiers use of the input device will occur in combat, while the Soldier is wearing tactical gloves and carrying a weapon
- The output device must include a small, hands-free color display at Super VGA (800 x 600) resolution or better
- Associated Connection Devices: Contractor shall provide GSE system Interconnect Cables
- Navigation: Component(s) that will identify the Soldiers location with or without GPS availability
- Radio Antenna and GPS Antenna
- Peculiar Support Equipment: Handheld display, various adapters
- Software: Contractor shall provide required software/firmware/device drivers to integrate the GFP and CFP into a GSE system

C.1.4 Government Directed Equipment. The audio I/O components (headsets with microphones) and cable connectors required for the GSE will be directed source pieces of equipment that the Contractor shall procure. The Government will provide to the Contractor the headsets with microphones for the prototype phase of this effort. The Contractor is required to modify the connectors on the headsets provided by the Government to make them compliant with the GSE system ICD.

C.1.5 Order of Precedence. In the event of a conflict between the text of this Statement of Work (SOW) and the references cited herein, the text of this SOW shall take precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

C.2 PROGRAM STRUCTURE & MANAGEMENT & ENVIRONMENTAL & SECURITY.

C.2.1 Program Management. The Contractor shall be responsible for overall GSE program synchronization which includes allocation of Contractor provided and Government provided resources to produce contract compliant GSE systems. The Government will retain overall program approval authority, functional baseline authority, allocated baseline authority and the program schedule. The Contractor shall immediately notify the Government of any program management changes that affect Government resources (i.e. meeting attendance, time changes to the Integrated Master Schedule, etc.).

C.2.2 Integrated Master Plan (IMP). The Contractor shall manage the contract in accordance with the Integrated Master Plan. Specific features or characteristics of the IMP that is submitted as part of the Contractors proposal may be incorporatedinto the contract as the baseline IMP (section J, Attachment 0004).

C.2.3 Integrated Master Schedule (IMS). Specific features or characteristics of the IMS that is submitted as part of the Contractors proposal may be incorporated into the contract as the schedule baseline (section J, Attachment 0005). The initial IMS shall be documented in terms of days following contract award, and subsequent updates shall be listed in terms of calendar dates. All tasks/activities in the IMS shall be logically linked, showing predecessor/successor relationships and critical path. The activities and tasks defined shall be sufficient to account for the entire program under contract, and, at a minimum, integrate all required data items, testing, hardware deliverables and major contract program events/reviews, contract milestones, technical milestones, key decision points, tie back to the IMP and show program events requiring Government participation. Contractor milestones shall be measurable events and individual scheduled task / activities shall be further broken down if a task / activities exceeds 30 calendar days in duration. Exit criteria for each major event shall match the scheduled predecessor requirements identified and expected for that event. Any changes to the IMS does not require Government concurrence unless the change(s) modifies the dates/durations of Government related events (i.e., reviews, testing, etc.), contract required data item/hardware/software delivery dates, or how significant events are linked in the schedule. In these cases, the Contractor shall immediately notify the Government Contracting Officer of the required change and provide a proposed solution for Government approval prior to the Contractor implementing the change. The IMS shall be provided in accordance with CDRL A010.

C.2.4 Integrated Product Team Structure. The Government-Contractor team shall utilize Integrated Product Teams (IPTs) to ensure the full integration of all functional areas in the overall development effort. The Governments anticipated IPT structure is shown in Section J, Attachment 0006. The Government IPTs will include Government, Contractor and subcontractor (where appropriate) representatives. The Contractor shall establish an internal IPT process and, at a minimum, shall include Program Management, Systems Engineering and MANPRINT IPTs, which will include representation from the Government. The Government will support other internal Contractor IPTs as appropriate. Government IPT members shall have unrestricted access to Contractor developed and implemented program plans, as well as all technical and management data developed under this effort. The Contractors Systems Engineering IPT shall include Information Assurance (IA) and Security Engineering representation. The Contractor representation to the Government Requirements IPT will be the Contractors focal point for IA compliance discussions.

C.2.5 Work Breakdown Structure. The GSE Work Breakdown Structure will be provided by the Government (Section J, Attachment 0007). The Contractor shall prepare and submit the Contract Work Breakdown Structure in accordance with CDRL A013. The Contractor shall employ the Work Breakdown Structure elements allocated in the contract for planning, managing, cost tracking, performance assessments and progress reporting. Contract Change Proposals and Supplemental Agreements shall require the same level of Work Breakdown Structure identification, definitions, and SOW relationships as the basic contract. The Contractor may further allocate Work Breakdown Structure

elements for internal use; however no changes shall be made at or above the cost accounting level established in the contract Work Breakdown Structure without Government approval.

C.2.6 Data/Correspondence.

C.2.6.1 Correspondence Transmission. The Contractor shall submit all data under this contract electronically and in Contractor format, unless otherwise specified. The electronic format of all correspondence and documents shall be compatible with both Microsoft Windows XP and Microsoft Vista operating systems, Microsoft Office 2003 suite of programs (i.e. Word, Excel, PowerPoint) and Microsoft Project 2003.

C.2.6.2 Integrated Data Environment (IDE). The Contractor shall establish an IDE that contains all Contractor-specific program information (non-classified), with access by the Government, to exchange, manage, and use the Contractors program information in a collaborative environment. The Contractors IDE shall be logically ordered to permit ease of navigation, and include a search function.

C.2.6.2.1 Types of Information. The Contractor shall post and maintain currency of all analysis, documentation (reports, minutes, drawings, analysis, specifications, program info, etc.) and data deliverables required by the contract in the Contractors Integrated Data Environment.

C.2.6.2.2 Data Access and Control. The Contractor shall implement controls to prevent data aggregation, unauthorized access, and any unauthorized release of proprietary, Sensitive But Unclassified (SBU), Controlled Unclassified Information (CUI) or classified data. The Contractor shall comply with DoD Directive 5230.24 in assignment of distribution markings. The Contractor shall develop work products through a common digital environment to reduce cycle time, cost, and paper waste. Government and industry tools used in the integrated data environment shall be available to both the Contractor and Government representatives, or to others as authorized by the Government. Government personnel shall have the capability to view, print, download, and annotate information. The most recent version of all data shall be made available in the Integrated Data Environment, and the Government members automatically notified within three working days of being posted. The Integrated Data Environment shall allow the Government and Contractor personnel the capability of retrieving all current and last-modified versions of documentation. Classified data shall be handled and provided separately on magnetic or optical media (not stored in the Integrated Data Environment). Classified data shall be handled in accordance with DoD 5220.22M National Industrial Security Program Operating Manual. Any Government restrictions on the use of the data in the Integrated Data Environment shall be as prescribed in the data rights clauses in the contract.

C.2.6.2.3 Integrated Data Environment Data Transmission Error-Checking and Transmission Rates. The Contractor shall support error-checking protocols to ensure correct and complete transmission of the data. The Contractor shall ensure the Integrated Data Environment database is connected to the Internet with sufficient bandwidth to allow for Contractor users plus a minimum of 5 Government users to each (simultaneously) download documents at a 100+Kb/second (Kilobits per second) data rate or greater.

C.2.7 Environmental Protection.

C.2.7.1 Environmental Compliance. The Contractor shall ensure that all aspects of contract execution, to include activities associated with design, prototype build, test, and storage, are in compliance with Federal, State, and Local environmental regulations and requirements. The Contractor shall immediately notify the Contracting Officer if the Government gives any direction that could result in permit violations.

C.2.7.2 Hazardous Materials Management. The Contractor shall plan, develop, implement, monitor, and maintain effective hazardous materials management for the physical components of the system in accordance with commercial practices. The Contractor shall minimize or eliminate hazardous materials in the system and related operational and support processes. Prohibited materials, toxic chemicals, hazardous materials shall be minimized to the greatest practical extend.

C.2.8 Pollution Prevention. The Contractor shall comply with the Pollution Prevention Act of 1990. The Contractor shall address the pollution control program objectives in the Refinement Phase at the Critical Design Review. The Contractor shall plan, develop, implement, monitor, and maintain effective pollution protection for physical components and related manufacturing processes in accordance with commercial practices. The Contractor shall avoid the use of toxic chemicals and Ozone Depleting Substances. The Contractor shall avoid manufacturing processes that will have a detrimental impact upon the environment and shall select environmentally preferable, recycled, or recovered materials to the maximum extent possible that meet or exceed the operational and maintenance requirements, and reduce life cycle cost.

C.2.9 Security Requirements. The Contractor shall maintain government-approved facilities for storage and control of classified information (minimum level is Secret), components and support equipment. GSE program classification information is contained in the GSS Security Classification Guide. The Government considers all other verbal information and documents handled or generated in conjunction with this acquisition to be unclassified information of a sensitive nature that must be protected against release to unauthorized individuals. The approval authority for release of information related to this acquisition is the Government contracting officer or PM SWAR representative. During all phases, to include the post-award phase, release of ANY information associated with this acquisition to ANY Government or private individual, firm, or business is prohibited without the express written approval of the approval authority. Further, product(s) or product information shall not be marketed, displayed, or discussed at any trade show, symposium, or through any other medium without the express written approval of the approval authority. Reproduction of any documents provided by the Government

is strictly prohibited without the express written approval of the approval authority. Requests for approval to release information submitted to the approval authority shall identify the specific information to be released, the medium to be used and the purpose for the release.

C.3 PROTOTYPING PHASE COST CONTROL.

C.3.1 Contractor Cost Data Reporting (CCDR). The Contractor shall prepare and submit a Functional Cost-Hour, Progress Curve Report and the Cost Data Summary Report for the Prototyping Phase. These documents shall all be IAW DoD 5000.04-M-1 and CDRL A011, CDRL A012,and CDRL A014. The Contractor shall prepare and submit the Contract Funds Status Reports IAW CDRL A016.

C.3.2 GSE CFE Cost As an Independent Variable (CAIV) Process. The Contractor shall develop ways of decreasing the cost of the GSE CFE items. CAIV effort shall include associated achievement criteria, descriptions of the CAIV process, proposed performance versus cost (to include life-cycle costs), and schedule trade-offs. The Contractor, as part of the CAIV effort, shall support the Government cost team in gathering the required input data on the various GSE CFE subsystems, subassemblies, etc. to adequately model the GSE CFE. The Contractor shall provide a status of the CAIV efforts (model status, current AUPC estimate, impacts of changes) and identify/status of ways to reduce the production and life cycle costs (to include removal of overly stringent oversight and / or performance requirements) of the program at each IPR. Costs shall be reported in constant FY 2009 dollars. The estimated levels, for the purpose of conducting CAIV analysis, for the GSE system over a 7 year period of time are as follows:

2009: 10 systems (prototype phase contract quantity)
2010: 60 systems (refinement phase contract quantity)
2011: 1,282 systems
2012: 2,564 systems
2013: 2,564 systems
2014: 2,564 systems
2015: 2,564 systems

The target average CFP hardware price using stated quantities through 2011 (excluding the hand held display and GSE adapters) is $12,900.00.

C.4 PROTOTYPE PHASE RISK MANAGEMENT.

C.4.1 Risk Management Process. The Contractor shall maintain a risk management /mitigation process that follows the concepts in the RISK MANAGEMENT GUIDE FOR DOD ACQUISITION, Sixth Edition (Version 1.0) dated Aug 2006 or a commercial equivalent. The risk management process shall allow the Contractor to document, track, update and manage areas of risk and track technical performance measures and metrics. Specific allocations of risk will be managed through the IPT process. The GSE Government-Contractor team shall establish and track technical performance measures for power, size, weight, and reliability requirements as a minimum. Metrics to track include average unit production cost, open/closed problem reports, requirements stability, failure analysis status, schedule and any additional metrics defined during the IPT process.

C.4.2 Risk Reporting. Risk management and reporting shall be an integral part of all technical reviews, periodic program management reviews, meetings, and IPTs. The Contractor shall make available risk assessments and risk mitigation status through the IPT process and via the Integrated Data Environment and shall include:

- A brief description, including both the title and type, of the risk
- A brief description of the risk root causal factor(s)
- An assessment of the risk's likelihood and the estimated severity of its effect on the program if mitigation fails
- The planned mitigations, along with critical dates (risk reduction milestones), that address the root cause(s) and effect(s)

C.5 PROTOTYPING PHASE MEETINGS/CONFERENCES/REVIEWS.

C.5.1 General. The Contractor shall include all planned reviews, meetings and conferences in the IMP and IMS. For ease of discussion the terms reviews, meetings and conferences are used interchangeably throughout section C.5. The Contractor shall conduct each review in cooperation with the appropriate Government Project Manager (PM) designated representative. The Contractor shall support each review preparing, hosting at their facility (unless specified otherwise in this SOW), and providing personnel, equipment, technical data, and technical products (presentation materials, mockups, drawings, models, software, etc.) required to conduct each review. The Government will work with the Contractor to combine meetings where appropriate.

C.5.2 Prototype Phase Meetings/Conferences/Reviews.

C.5.2.1 Start of Work Meeting. The Contractor shall conduct a Start of Work meeting no later than 14 calendar days after contract award or as otherwise specified by the Government. The Contractor shall present an overview of its entire contractual effort to include, as a minimum: IMP, WBS, cost accounting system, IMS, entrance/exit criteria for significant events (Preliminary Design Review, customer field evaluation, Critical Design review), required testing, Integrated Logistics Support (ILS) efforts and, subcontractor award schedules/status. The Contractor shall submit the presentation material and meeting minutes in accordance with CDRL A015.

C.5.2.2 In-Process Reviews (IPR). The Contractor shall participate and support all IPRs. The Start of Work meeting is considered the first IPR. Follow-on IPRs shall occur as shown in the IMS. The IPRs shall provide a working management level forum to identify, discuss, and resolve issues that could affect the overall system from achieving the contractual requirements. The IMS, risk management / mitigation status, Cost as an Independent Variable (CAIV) initiatives / status, supportability updates, system engineering updates, metrics, technical performance measures progress, and open action item status shall also be presented at these reviews. The Contractor shall submit the presentation material and meeting minutes in accordance with CDRL A015.

C.5.2.3 Technical Reviews. The Contractor shall conduct and support a series of technical reviews that serve as milestones for the system engineering design and development process for the refinement phase developed systems.

C.5.2.3.1 Preliminary Design Review (PDR). The Contractor shall conduct a PDR to ensure that the system under review can proceed into detailed design, and can meet the stated performance requirements, schedule, risk and other system constraints. The Contractor shall ensure that each function in the functional baseline has been allocated to one or more system configuration items. The PDR establishes the allocated baseline for the GSE. The Contractor Furnished Property portion of the GSE system allocated baseline shall remain under the control of the Contractor until successful completion of GSE system Critical Design Review. The Contractor Furnished Property shall be documented in one subsystem specification, describing performance functionality of all components (broken down by hardware & software) included in the Contractor Furnished Property. The Government will conduct a software PDR for Government Furnished GSE Soldier Application and provide the relevant information to the Contractor. The Contractor shall present the GSE CFP PDR to the Government that describes all components comprising the Contractor Furnished Property, and also the overall GSE system-level integrated preliminary design. The Contractor shall include the following information at the PDR, at a minimum:

- An updated program development schedule including critical path drivers.
- Programmatic decisions (cost/performance/supportability/schedule tradeoffs)
- Program risks and problem areas identified with mitigation plans
- A formal CFP allocated baseline defined by a contractor furnished property subsystem specification and associated subsystem-level technical documentation, maintained in accordance with the Contractors configuration management process.
- Traceability of all subsystem requirements to the functional baseline.
- Modularity and interface design incorporating the GSE Interface Control Document requirements.
- Proposed Maintenance Allocation Chart and anticipated maintenance actions
- In-house test planning to verify critical performance parameters.
- Anticipated system hardware procurement lead times.
- Draft Software Architecture, incorporating Government Furnished Property software.
- Attachment 13 (IA Worksheet) updated based on system design progression
- A draft Logistics Concept.
- CAIV analysis and trade-offs

The decision to proceed past the GSE system PDR shall be documented in Preliminary Design Review meeting minutes for Government approval. The Contractor shall submit the presentation material and meeting minutes in accordance with CDRL A020.

C.5.2.3.2 GSE Critical Design Review (CDR). The Contractor shall conduct a GSE CDR to ensure that the system under review is ready to proceed into the refinement phase of the GSE effort. This review determines that the system design is ready to proceed into formal design documentation, integration, test, Government Development Test (DT) and follow on Government Limited User Test (LUT).

This review assesses the final design as captured in subsystem / component / product descriptions, specifications and drawings for each configuration item in the product baselines. Product specifications or drawings for contractor furnished property hardware shall be available to determine production readiness of components. Product specifications for software developed to support contractor furnished property shall be available as well. The Government will conduct a software CDR for Government Furnished GSE Soldier Application and provide the relevant information to the Contractor prior to the Contractor conducted GSE system level Critical Design Review.

The Contractor shall present the following at the Critical Design Review as a minimum.

- An updated program development schedule including critical path drivers.
- Programmatic decisions (cost / performance / supportability /schedule tradeoffs) since the Preliminary Design Review,
- Program risks and problem areas identified and mitigation plans,
- Summary of changes that have occurred to the design, ICD, performance specification and CAIV projections since the Preliminary Design Review,
- Modularity and interface design incorporating the GSE Interface Control Document requirements.
- Detailed design of each subsystem and module that satisfies the allocated baseline (Government provide GFP related info)
- Computer Software Configuration Item (CSCI) and Computer Software Component (CSC) software algorithms and data structures developed to support contractor furnished property.
- Product Specifications, Product Interface Control Specifications, and associated drawings and material/supplier lists comprising a formal CFP product baseline maintained in accordance with the Contractors configuration management process.
- Traceability of GFP and CFP subsystem design to the allocated baseline.

- Attachment 13 (IA Worksheet) finalized
- System integration flow down of all system-level requirements into the subsystems design,
- Inter-subsystem and modular interfaces.
- Planned integration testing which will verify hardware-to-hardware and software-to-hardware interfaces and functional flow.
- Rationale showing path to meeting unit cost targets and path towards any objective performance.
- A Logistics Concept approved by the supportability IPT.
- Anticipated system hardware procurement lead times.
- CAIV analysis results and trade-offs
- System producibility
- Lessons learned from Government field evaluation and how the information has been used to refine the GSE system
- Technology Maturity Assessment of the GSE system

The decision to proceed past Critical Design Review and into the Refinement phase shall be documented in meeting minutes for Government approval. The Contractor shall submit the presentation material and meeting minutes in accordance with CDRL A021. The Contractor is required to obtain approval from the Government to order refinement long lead material prior to successful completion of the GSE System CDR approval.

C.5.2.4 Government Sponsored Reviews. The Contractor shall provide knowledgeable representation at the following Government quarterly sponsored reviews: Test & Evaluation (T&E) Integrated Product Team (IPT), System Engineering IPT, Supportability IPT and MANPRINT IPT.

C.6 PROTOTYPING PHASE SYSTEMS ENGINEERING.

C.6.1 Systems Engineering Tasks. The Contractor shall develop and design the GSE using the technical architecture defined in the GSE System Interface Control Document. Where Contractor engineering is involved, the Contractor shall implement an open system commercial-based architecture, maximizing use of mature technologies, integrating Government Furnished Property hardware and software, optimizing soldier-to-machine interfaces, while considering transition from development to production, CAIV and life cycle costs. The Contractor shall integrate the Contractor Furnished Property with Government Furnished Property to produce GSE systems suitable for testing and user assessments.

C.6.2 Requirements / Functional Analysis and Allocation. The Contractor shall use the GSE Functional Baseline consisting of the GSE System Performance Specification, GSE System Interface Control Document and GSE System Software Allocation Matrix to allocate performance, reliability and cost parameters to the contractor furnished property. The Contractor shall develop a single Contractor Furnished Property (CFP) subsystem performance specification describing the requirements allocated from the functional baseline to the CFP that defines a portion of the GSE system allocated baseline. The CFP subsystem performance specification that is submitted as part of the Contractors proposal package incorporating any change(s) that occurred during the source selection becomes the initial CFP subsystem performance (section 3) baseline upon contract award (section J, Attachment 0008). The Contractor shall update and deliver, as part of the GSE Preliminary Design Review documentation, the complete CFP subsystem performance specification in accordance with CDRL A030. The final consolidated CFP subsystem performance specification shall be submitted as part of the documentation in support of the GSE Critical Design Review. The allocated requirements shall be maintained with traceability to the functional baseline requirements. Derived requirements shall be appropriately annotated. The Government shall take configuration control of the CFP subsystem performance specification at the completion of the GSE Critical Design Review.

C.6.2.1 The Contractor shall support the Governments GSE Requirements IPT to help clarify GSE requirements, in assessing the user functionality to system specification linkage, and the allocation of requirements to the GSE subsystem specifications. The outcome of this effort will flow down into contractor furnished property technical requirements.

C.6.2.2 The Contractor shall conduct a top-down functional analysis of the proposed CFP and present results at the Preliminary Design Review. The Contractor shall conduct analysis and design to sufficient detail to generate functional test requirements listed in Section 4 of the CFP Subsystem Performance Specification prior to PDR. The current version of the CFP subsystem performance specification shall be posted to the Contractors Integrated Data Environment. This analysis shall be updated by the Contractor as needed to support the Critical Design Review.

C.6.2.3 The Contractor shall establish a CFP subsystem product baseline consisting of component specifications, interfaces, drawings and software design documents. This product baseline shall be reviewed by the Government at the Critical Design Review to assess design completeness and traceability to higher level allocated and functional baselines. The Contractor shall maintain control of the product baseline.

C.6.3 System Integration. The Contractor shall be responsible for the overall system integration of the CFP and GFP into the GSE systems delivered for evaluation under the contract, in compliance with the Government established GSE Technical Architecture as defined in the GSE System Interface Control Document. System Integration involves combining a group of components and engineering the system so all components work together to meet system requirements.

C.6.3.1 System Integration Status. The Contractor shall maintain the system integration status on the Integrated Data Environment, within the IMS and address this during all reviews. The Contractor shall provide inputs on allocated risk elements associated with system integration effort.

C.6.3.2 Government Technical Support. The Government will support the Contractors GSE system integration activities with GFP technical data and technical engineering consultation in the areas of the RT-1922C/G Radio, LI-145 battery, Rifleman Radio and Government provided software. This engineering support will be limited in duration, manpower and level of technical data that can be provided; however the Contractor shall ultimately assure that the GSE systems delivered for testing meet the requirements established in the GSE Functional Baseline.

C.6.3.3 System Integration Tasks. The Contractor shall perform specific system integration tasks that include, but are not limited to the following:

- Establishing functional traceability from system level through hardware and software subsystems to verify that requirements are accurately distributed.
- Performing interface and data flow analysis to verify that system functions are properly defined and allocated among subsystems requirements.
- Verifying functional flow, data flow and connectivity for functions that use external interfaces or system of systems (such as networked communications).
- Performing internal Contractor functional testing in accordance with the subsystem test criteria and the System Performance Specification.

C.6.4 Information Assurance (IA). The Contractor shall design, plan for production, and develop the CFP that will be a vital component of the IA accreditation requirements of the GSE. The GSE will be accredited by the responsible Government Designated Approving Authority (DAA). The Contractor shall conduct a System Security Engineering (SSE) program that results in delivery of a GSE that is in compliance with National, DoD, Army, and PM IA guidance design, product, and documentation. The Contractor shall: 1) participate in the IA Sub-IPT [or working group] of the GSE Requirements IPT, 2) Implement necessary IA features, 3) Implement periodic IA scans and analysis, 4) employ software quality and validation methods, and 5) ensure configuration management is preserved.* IA Sub-IPT internally distributed, informal, draft versions of the IA Report described below will be continuously maintained to facilitate ongoing IA discussions.

C.6.4.1 Compromising Emissions (TEMPEST). The Contractor shall integrate the GFP and CFP into a GSE system design that shall meet Level II emission requirements, Level I conduction, and NONSTOP requirements by the end of the refinement phase. These requirements are defined in NSTISSAM TEMPEST /1-92; and NSTISSAM TEMPEST/2-95. TEMPEST design principles, design, and analysis of resultant performance shall be reported via the Information Assurance Report(IAR). This section of the IAR, may require submittal as a classified annex, using DI-MSMT-81026 as a guide.

C.6.4.2 Information Assurance Report. The Contractor shall generate and maintain a comprehensive Information Assurance Report (IAR) to facilitate communication of GSE Information Assurance stance to the Government Requirements IPT. The Information Assurance Report shall document the GSE system role in GSE Control Compliance, the trusted start-up/shutdown process, and necessary Ports, Protocols, and Services stance. The Information Assurance Report shall also address Information Assurance Vulnerability Alert (IAVA) Stance, Security Technical Implementation Guide (STIG) Stance to the degree that they apply. Additionally, the Information Assurance Report shall also provide GSE system pertinent input required for generation of the GSE Security Architecture Feature Users Guide, Security Concept of Operations, and Security Standing Operating Procedures (SSOP). The Information Assurance architecture feature users guide inputs shall describe the Information Assurance features of GSE system and user functions (to include system operator, maintainers and security system administrator) related to security and the expected system reaction to security related events. GSE system protection design features, to include at a minimum TEMPEST controls, User Authentication, Data Confidentiality and Integrity shall be addressed in a GSE system context. The Security Concept of Operations inputs shall identify GSE system security components, how they work together, and with non-GSE interfaces, and the security concept of external and internal operations of the GSE system. The Security Standing Operating Procedures inputs shall address specific procedures or considerations that are eventually conveyed to the GSE system users and information assurance personnel. Information assurance feature traceability to requirements will be maintained by the Requirements IPT and configuration items shall be maintained by the CM process. The Information Assurance Report shall be provided by the Contractor in accordance with CDRL A040.

C.6.5 Manpower and Personnel Integration (MANPRINT)/Human Systems Integration. The Contractor shall plan and implement a MANPRINT program to address and integrate the seven domains of MANPRINT (human factors engineering, system safety, health hazard assessment, soldier survivability, manpower, personnel, and training) consistent with Army MANPRINT program requirements described in AR 602-2. The Contractor shall establish an internal MANPRINT Integrated Product Team (IPT), which shall include a Government representative, to ensure that system design fully addresses MANPRINT requirements throughout the development process.

C.6.5.1 Human Factors Engineering (HFE). As part of the MANPRINT program, the Contractor shall plan and implement a Human Factors Engineering Program to assure that the CFP and integration with the GFP conform to the system performance specifications HFE/MANPRINT requirements. The HFE program shall focus on soldier-system performance capabilities, soldier-system interface design, ease of system operation, straightforward system set-up and disassembly and maintenance operations, and design for soldier mobility, comfort, ease of movement, and portability. The Government will provide human engineering representatives to participate and assist with HFE design; however final GSE system configuration shall be the responsibility of the Contractor. HFE performance will be assessed in field evaluation, Government fightability assessments, Development Test and Limited User Test. The HFE progress and current status shall be presented at each IPR and Technical reviews.

C.6.5.2 Fightability Assessments. The Contractor shall support a Government planned GSE fightability assessment prior to the conclusion of the Prototyping Phase. The Government may support earlier Contractor conducted internal fightability evaluations depending on resource availability. System anomalies discovered during the fightability assessments shall be documented as incidents occur and posted to the Contractor Integrated Data Environment.

C.6.6 Producible Design. The Contractor shall design the CFP subsystem and subassemblies considering producible design, one that does not depend on component part matching, proprietary processes or unique procedures. MIL STD 1528A and DoD 4245.7M may be used for guidance. Efforts associated with improving the producible design characteristics shall be presented at GSE technical reviews.

C.6.7 Technology Maturity Assessment (TMA). The Contractor shall deliver a Technology Maturity Assessment of the contractor furnished property technologies included in the GSE system. This assessment shall include, at a minimum, (1) a description of the technology, the system performance specification requirement(s) that it meets, the function it performs and how it relates to other parts of the system, (2) a description of the environment in which the technology has been demonstrated and an analysis of the similarities between the demonstrated environment and the intended operational environment and (3) the Technology Readiness Level (TRL) assigned to each technology. The Contractor shall delivery the TMA in accordance with CDRL A050.

C.6.8 Testability Analysis. The Contractor shall conduct a testability analysis to determine the level of built-in-test (BIT) coverage and level of fault detection that shall be achieved by the GSE system design (use MIL-HDBK-2165 tasks 203.2.2, 203.2.5, 203.2.7, 203.2.8, 203.4.2, and 203.4.4 as guidance). The Contractor shall document this effort as part of the Preliminary Design Review and Critical Design Review.

C.6.9 Modeling and Simulation. The Contractor shall use modeling and simulation as appropriate to perform design and supportability trade-offs. The Contractor shall support the Governments modeling and simulation efforts through the Integrated Product Team process.

C.6.10 Network Design and Validation. The Contractor shall participate with the Government in technical reviews, interface definition and technical interchange with Government programs responsible for military battlefield communications and technical interfaces defined in the GSE Interface Control Document. This shall include establishing interface criteria, design, verification criteria, simulations and documenting these efforts. All external network and GSE-only network interfaces, connectivity, functionality and data flow shall be verified by the Contractor through testing.

C.6.11 Interface Control Documents. The Contractor shall provide a GSE CFP Subsystem interface control documentation in accordance with CDRL A032. This document shall provide any changes required to the Government system interface control document to properly document the CFP subsystem interfaces to the larger GSE system. The interface control document shall include the following, at a minimum:

- Configuration and interface dimensional data applicable to the envelope, mounting and interconnection of the related items;
- Complete interface engineering requirements (mechanical, electrical, electronic, optical, etc.), which affect the physical or functional characteristics of the co functioning items;
- Any other characteristics that cannot be changed without affecting system interfaces.

C.6.12 Integration Testbed. The Contractor shall use a System Integration Testbed for evaluating overall system-level performance. The System Integration Testbed shall be certified to securely store and use Government Furnished Property. Any configuration of the GSE system scheduled for Government testing shall first be qualified by the Integration Testbed.

C.6.13 GSE Navigation. As part of the Contractors GSE design to meet GSE navigation requirements, the Contractor shall integrate a Government Furnished GB-GRAM GPS card the meets MIL-PRF-GB-GRAM-300 for Small Serial Interface (SSI) form factor. This solution shall be fully SSI compliant and shall not depend on features outside of MIL-PRF-GB-GRAM-300. The GB-GRAM navigation component integration shall consider guidance published in the SSI GB-GRAM Integrator's Guide and the ICD-GPS-153C Integrator's Guide. The Contractor is responsible to obtain the required security approvals of their GSE navigation design implementation and shall include this process in the IMS. The Contractor shall coordinate with the Government and the GPS Wing (GPSW) to conduct a security review of the integration design IAW GPU-03-105. The Contractor shall handle the transfers of GPS devices with military security devices IAW CZU-03-071.

C.7 PROTOTYPING PHASE QUALITY ASSURANCE.

C.7.1 Quality Assurance System. The Contractor shall establish and maintain a quality system that, at a minimum, adheres to the requirements of ISO 9001 or the ANSI/ASQC equivalent ASQC (Q9001), "Quality Systems - Model for Quality Assurance in Design, Development, Production, Installation and Servicing" or an equivalent Quality system and supplemental requirements imposed by this contract. The objective of quality assurance is to focus on the effectiveness of the design process and develop robust requirements that are achievable and cost effective. Quality shall be viewed as an attribute, which is controlled by the engineering/design and business processes. The quality system plan, procedures and all documentation and data that comprise the quality system shall be made available to the Government to review. The Government may elect to require the Contractor to perform any necessary inspections, verifications, and tests to ascertain conformance to the requirements and the adequacy of the implementation procedures. The prime Contractor shall require of subcontractors or suppliers a quality system achieving control of the quality of services and supplies provided. The Government reserves the right to disapprove the quality system or portions thereof when it fails to meet its contractual

requirements. Acceptance of the Contractors quality system shall not in any way relieve the Contractor of responsibility for compliance with all contract requirements. The Contractor shall maintain a calibration system in accordance with ISO/IEC 17025:2005, ISO 10012-1:1992(E), or equivalent.

C.7.2 Quality Assurance Testing. All formal Contractor and Government quality assurance testing shall occur in accordance with the dates established in the IMS. Five working days prior to the start of each test, PM shall be electronically notified.

C.7.2.1 Test Inspection and Test Records. The Contractor shall maintain records of all formal inspections and tests (not including Government conducted testing) throughout the contract duration. The records shall cover both conforming and non-conforming items. Inspection and test records shall as a minimum indicate:

a. The part, component, or system identification (name and part number).
b. The serial (or lot) number(s).
c. The quantity of items inspected/tested.
d. The nature and number of the observation, inspection, or test.
e. The results of the observation, inspection, or test, and the number and type of deficiencies (if any) found.
f. For non-conforming items, the records shall include the results of the failure analysis, cause, and corrective action.

Data included in the inspection and test records shall be complete and accurate, and shall be used for trend analysis and to assess corrective action effectiveness. Inspection and test records shall be stored until contract completion or a minimum of three years from the date of origination, whichever is longer. The records shall be made available for review by the Government upon request.

C.7.2.2 Abbreviated System Test (AST) Plan/Procedures. The Contractor shall provide an AST Test Plan/Procedures for GSE system that when executed verifies compliance with the GSE System Specification (see Table 4.1 of the GSE System Specification for required Contractor AST tests) and is in accordance with CDRL A060. The final Government approval of the test plan/procedures shall occur prior to commencement of AST testing.

C.7.2.3 Abbreviated System Tests (AST). The Contractor shall test a subset of the GSE System Performance Specification (SPS) requirements (i.e. Section 4 of the GSE SPS, column Contractor AST) to provide the Government confidence that the Contractors approach is on track to meet the overall GSE contract requirements. The ability to meet these requirements will be part of the prototype GSE system assessment and decision to proceed beyond Critical Design Review into the Refinement Phase. The AST testing shall be conducted in accordance with the Government approved AST test plan/procedures. The AST testing shall be completed prior to commencement of the Government field evaluation. Upon successful completion of the AST, the Contractor shall prepare and submit an AST test report in accordance with CDRL A065. The AST report shall address all testing performed, failures encountered and corrective actions implemented.

C.7.2.4 Highly Accelerated Life Testing(HALT) Plan/Procedure. The Contractor shall submit a HALT test plan/procedures for the GSE CFE subsystem (excluding headsets) in accordance with CDRL A067. The final Government approval of the test plan/procedures shall occur prior to commencement of HALT testing.

C.7.2.5 Highly Accelerated Life Testing (HALT). The Contractor shall conduct Highly Accelerated Life Testing (HALT) on three CFE subsystems to precipitate design weaknesses and improve the subsystems reliability. These CFE subsystems should be properly marked so they do not get delivered to the Government after completion of the HALT testing. Failures discovered during HALT shall be documented as part of the AST report. The Contractor shall make necessary design changes and incorporate them in the systems used for the AST testing. Results of the HALT testing shall be presented during the IPRs and documented as part of the AST report.

C.8 PROTOTYPING PHASE GSE SYSTEM QUANTITY. The Contractor shall design, fabricate, test and deliver ten (10) prototype GSE systems for the Government conducted Field Evaluation.

The Contractor provided peculiar support equipment, as defined in the GSE System Interface Control Document Attachment 2 (Table 3-1) shall be provided at the same time as the GSE systems, in the prototype phase quantities stated below:

CFP Peculiar Support Equipment	WBS element	Quantity	Note
Video Display Cable	1.7.5	0	Note C.8-A
Data Logging Cable	1.7.6	0	Note C.8-A
PAN to USB Adapter	1.7.7	3	Note C.8-A
PAN to Ethernet Adapter	1.7.8	3	Note C.8-A
NATO Soldier Power Cable	1.7.9	0	Note C.8-A
Hand held Display & Cable	1.7.10.4	2	Note C.8-A

Note C.8-A: The GSE system performance specification environmental requirements do not apply for these items being delivered during prototype phase. The Contractor shall harden to levels commensurate with use in commercial environments.

C.9 PROTOTYPING PHASE RELIABILITY.

C.9.1 Reliability Program Plan (RPP). The Contractor shall incorporate processes and procedures to meet the time-phased reliability

assessments and reliability growth monitoring requirements for the contractor. The Contractor shall document progress in achieving the GSE system reliability requirements, as part of the GSE IPRs and technical reviews. The Contractor shall manage the GSE system reliability program in accordance with the RPP. Specific features or characteristics of the RPP that is submitted as part of the Contractors proposal may be incorporated into the contract as the reliability program baseline (Section J, Attachment 0009).

C.9.2 Reliability subsystems. The Contractor shall incorporate diagnostics and prognostics subsystems (BIT/BITE) to the extent as determined to meet the reliability, testability and maintainability requirements specified elsewhere in this SOW and Specifications. Throughout the prototyping phase, as the designs are developed, reliability shall be given equal priority to cost, performance, and schedule in all components design trade-offs and decisions.

C.9.3 Reliability Modeling, Allocations and Predictions. During the Prototyping Phase, the Contractor shall establish and maintain a reliability modeling and allocations task for the GSE system. The purpose of this task is for the Contractor to develop mathematical reliability models, allocate the reliability requirements down to lower levels and perform initial reliability predictions for the system. Reliability allocations developed in this task shall be used by the Contractor as input for CFP subsystem performance specifications. The results from these analyses shall be presented during the Preliminary Design Review and any updates provided at the Critical Design review. Analyses from this task shall be prepared by the Contractor and submitted in accordance with CDRL A035. Reliability block diagrams shall be included and traceable to the system functional block diagram and drawings. Associated allocations and predicted values for each block of the diagram shall be provided. Mathematical and statistical modeling and predictions techniques used in this task shall be documented. Failure rate data and its sources shall also be included. Commercial-Off-The-Shelf (COTS) hardware reliability data available from the vendor/supplier will be used when available. Existing military standards and handbooks can be used as guide for this task, however, once approved by the Government, the Contractor may select other industry/commercial acceptable reliability modeling and predictions techniques, as deemed applicable.

C.9.4 Reliability Verification and Reliability Growth Management. The Contractor shall demonstrate to the Government the attainment of the GSE system reliability requirement through a structured reliability growth program that is included within the reliability program plan. The Contractor reliability growth program shall be in-line with the Government defined idealized growth planning curve, Attachment 0010. The Contractor shall demonstrate attainment of the required reliability through a series of reliability growth test and fix phases in accordance with reliability growth program plan. The Contractor shall track the reliability to include the number of failures during each test event as well as the number of corrective actions implemented during each fix period. The Failure Reporting, Analysis, and Corrective Action System shall be applicable for this task. At a minimum, the Contractor shall demonstrate to the Government, at the end of the Prototyping Phase Field evaluation, a minimum GSE system reliability of Mean Time Between Failures (MTBF) of at least 80 hours and a GSE CFP subsystem MTBF of at least 128 hours.

C.9.5 Failure Mode and Effects Analysis (FMEA). The identification and understanding of the failure modes are key to improving the inherent reliability of the system design. The FMEA shall be conducted down to the lowest repairable level of the GSE CFP using a bottom-up and hardware analysis approach. Any significant design changes to the GSE CFP shall be reflected in the final FMEA and an update to the analysis shall be provided to the Government. Commercial or industry best practices procedures, once approved by the Government, would be considered as acceptable for this task. The Contractor shall document this effort and present the results as part of the Critical Design Review.

C.10 PROTOTYPING PHASE SOFTWARE.

C.10.1 GSE Software Development. The Contractor shall provide all engineering services and products required to ensure integration of their CFP with the Government GSE Soldier application. The GSE Soldier Application software will be a Government furnished software package. Contract attachment 14 provides additional information on the Government GSE Soldier Application (GFP software) development, software integration and software unit testing timelines and requirements. There are two scheduled software drops 1 & 2. The first software release is during the prototype phase and the second release is during the refinement phase. The Government will provide GSE Soldier Application executable software to the GSE prime contractor at the end of each successful software drop unit test. The Contractor shall be responsible, at their facility, for the loading of each software drop onto their GSE systems for Contractor system integration and system level testing. The Government will provide GSE Soldier application related software engineering support to GSE prime contractor during their system integration and system testing as determined by the Government.

Contractor shall include their planned software / device driver development and testing efforts and technical support to the Government software development efforts in the IMS.

C.10.2 GSE Software Development Support.

C.10.2.1 Technical Support. The Contractor shall provide on-site technical support to assist the Government in the software drop 1 integration and software unit testing of the GSE soldier application with the Contractor provided CFP hardware/device drivers. This support shall be at the Government Software Integration Lab (SIL) location.

C.10.2.2 Open Framed CFP engineering prototype systems. The Contractor shall provide two GSE CFP open framed engineering prototype units (includes all associated cables, power supplies, device drivers, on-site support, documentation and support equipment to make them fully functional) to the Government SIL for Government use to support the Government GSE software development, software integration and software unit testing efforts. These open framed CFP engineering prototype units and associated support equipment shall be maintained

by the Contractor and will be returned to the Contractor at the end of the contract. The open framed CFP engineering prototype systems are not part of the paragraph C.8 GSE system deliverables.

C.10.2.3 Government Software Reviews.

C.10.2.3.1 GSE Software PDR. The Contractor shall participate in the Government conducted GSE Software PDR. The purpose of the Software PDR is to finalize the GSE system software allocation baseline and partitioning of software related requirements (Attachment 19: GSE system software allocation matrix) between the GSE soldier application and functionality being provided by the Contractor CFP subsystem. The GSE Software PDR will be conducted at the Government SIL location.

C.10.2.3.2 GSE Software CDR. The Contractor shall participate in the Government conducted GSE Software CDR. The purpose of the Software CDR is to finalize the GSE system software product baseline. The GSE Software CDR will be conducted at the Government SIL location.

C.11 PROTOTYPING PHASE INTEROPERABILITY REQUIREMENTS.

C.11.1 Systems Interoperability. The Contractor shall be responsible for systems interoperability. Systems interoperability shall, at a minimum include interoperability of the GSE hardware, software, and logistics systems insuring the GSE maintains interoperability with evolving Army digital network standards and capabilities. Integration of Government Furnished Property shall not degrade the demonstrated interoperability between Government Furnished Property components.

C.12 PROTOTYPING PHASE CONFIGURATION MANAGEMENT.

C.12.1 Configuration Management. The Contractor shall manage the GSE contract configuration management effort in accordance with their internal Configuration Management Plan (CMP). The Contractor is responsible for configuration and data management, planning and integration to assure the Government that the Contractor maintains a structured approach to controlling the configuration integrity of the GSE components and integrated system activities, maintains interchangeability of contractor furnished property hardware, and assures the CFP allocation and CFP product baselines are documented and maintained throughout contract. The CMP and all associated documentation, files and data that comprise the configuration management system shall be made available to the Government to review when requested by the Government. The Government reserves the right to disapprove the Contractors CMP or portions thereof when it fails to meet contractual requirements. Acceptance of the Contractors CMP shall not in any way relieve the Contractor of responsibility for compliance with contract requirements.

C.12.2 Configuration Management Provisions. The Contractor shall include the following provisions to support the Information Assurance accreditation requirements of the GSE and the GSE hardware configuration management process: 1) documented roles and responsibilities 2) IA Manager is a member of the control board 3) hardware and software inventory is maintained, 4) Change controls are implemented 5) adequate back-up procedures exist, 6) security critical design information maintained in privilege controlled CM libraries, and 7) access privileges are reviewed every 3 months.

C.12.3 System Baselines. The Contractor shall implement a configuration management program to manage the contractor furnished property elements of the allocated and product baseline configurations for the GSE CFP system developed in the Prototyping Phase. The Government shall retain configuration control of the functional baseline, documented in the GSE System Performance Specification, GSE system software allocation matrix and GSE System Interface Control document. The Government shall also retain configuration control of the non-CFP GSE allocation baseline. The CFP allocated baseline and CFP product baseline (in terms of form, fit, function and interface) shall be documented with direct traceability to the functional baseline. The Contractor traceability tool shall be compatible with Dynamic Object Oriented Requirements System (DOORS) tool. The Contractor shall provide an electronic copy of the CFP allocated baseline to the Government that can be loaded into DOORS at the Critical Design Review as part of CDRL A021.

C.12.4 Configuration Control Changes. The Contractor shall maintain a configuration status accounting system that provides an auditable trail of configuration changes to configuration documents. When proposing a change to the functional configuration documentation, the Contractor shall prepare and submit Configuration Control change requests in accordance with the Configuration Management Plan.

C.12.5 Configuration Control Boards. The Contractor shall establish a Configuration Control Board. The Contractor shall participate on the Government Configuration Control Board through the GSE Requirements IPT to review proposed changes to functional baseline. No change to the functional baseline shall be implemented until formally approved by the Government, and the Contractor has been notified by the contracting officer to implement the change.

C.13 PROTOTYPING PHASE ILS-Provisioning.

C.13.1 Maintenance Allocation Chart. The Contractor shall develop and prepare a Maintenance Allocation Chart (MAC) for the CFP portion of the GSE system in top-down generation breakdown sequence in the logical order of disassembly starting with the end item and contain all functional groups that require maintenance. The process of breakdown is established from the engineering drawing structure in a Next Higher Assembly (NHA) progression until the lowest reparable in each family tree group is identified. All reparable items must have a functional group or subgroup assigned that aligns with the maintenance work package and identifies all repair parts needed for repair in

the Repair Parts Special Tools List (RPSTL). The MAC shall include all maintenance significant components, assemblies, subassemblies, and modules. No item will be deleted from the MAC without Government approval. If a maintenance function is a replacement function only for a repair part, the item shall not be listed in the MAC, unless not listing the item would result in deletion of the group number, in which case the item shall be listed in order to retain the functional group number. Items requiring a test procedure before replacement shall also be listed on the MAC. The Contractor shall provide the MAC in accordance with CDRL A070. After Government review and acceptance of the MAC breakdown, the Government approved MAC shall form the baseline for the associated technical manuals and provisioning effort.

C.13.1.1 Top-down is accomplished by sequencing all parts comprising the end item in a lateral and descending family tree/generation breakdown. This breakdown shall consist of the end item including all components, listing every assembly, subassembly, and part that can be disassembled, reassembled, and/or replaced. All parts shall be listed in their relation to the end item, component, assembly, or installation system in which they are contained and to their own further sub/subassemblies and parts. The only exception being welded components which will not be broken down into piece parts.

C.13.1.2 Breakdown is accomplished by starting with the end item as the A indentured item, and descending, by subsequent indenture levels (B, C, D etc.) resulting in a complete depiction of the end item. Major assemblies, sub-assemblies, or components would normally be at the B indenture level, etc., utilizing as many levels as necessary until the last item(s) are depicted. When more than one group is to be depicted at the same indenture level, standard practice and best maintenance procedures will dictate which group will appear first, (e.g., a cylinder head assembly would normally necessitate removal prior to removing the cylinder block assembly; therefore, the cylinder head assembly would appear prior to the cylinder block in the breakdown sequence.

C.13.1.3 Indenture. This top-down breakdown relationship is shown by means of an indenture code in the Repair Parts Special Tools List (RPSTL) and Provisioning Parts List (PPL). The indenture code indicates that the item is either associated with, contained in, or part of, the preceding item identified with an indenture code of the preceding alpha character.

C.13.1.4 The basic entries in the MAC shall be a list of functional groups applicable to the end item which require maintenance. The term functional group applies to reparable assemblies and subassemblies, i.e., spares (any consumable, non-repairable component required for the maintenance or repair of an end item).

C.13.1.5 Entries shall be item names (a basic name and a noun work or phrase modifier, e.g., transformer, pulse, low power) and, where applicable, type designators, without stock or Part Numbers (P/Ns) if possible, in order to minimize need for subsequent change; however, entries shall contain positive identification.

C.13.1.6 All item names of MAC functional groups shall be the official nomenclature in accordance with the RPSTL nomenclature or other source as specified by the acquiring activity.

C.13.1.7 Engineering Drawing Tree. The Contractor shall provide a top-down generation breakdown engineering drawing tree of the GSE CFP subsystem with sufficient detail so that the Government can verify the functional groups and Next Higher Assembly (NHA) for each item listed on the MAC and how it ties back to the rest of the GSE system modules.

C.13.2 Supportability Analysis Summaries. The Contractor shall develop and prepare for the GSE CFP subsystem the Supportability Analysis Summaries (SAS) to support decisions made for development of the Maintenance Allocation Chart (MAC) maintenance functions, maintenance levels, and maintenance repair times. The Supportability Analysis Summaries consist of the Maintenance Planning Summary and the Repair Analysis Summary. These summaries may be combined into one report if all the required data is included. The Contractor shall provide the Supportability Analysis Summaries in accordance with CDRL A072.

C.13.2.1 Purpose of Summaries. To set forth basic principles, objectives, policies, and assign responsibilities for maintenance and provisioning of the end item(s). Supportability summaries shall clearly and logically support the maintenance functions, man-hour(s) for each maintenance function, skill(s) needed to complete action, and Military Occupational Specialty (MOS) needed to complete action for the maintenance functions for each group of the MAC. The summaries provide guidance for planning, managing, executing, and evaluating provisioning programs within the framework of the Acquisition process using Integrated Logistic Support (ILS) techniques.

C.13.2.2 The summaries provide maintenance planning information to the Government that may be used to develop initial fielding plans for the end item support structure. These summaries may also be used to verify that the maintenance actions and support structure are aligned with the Governments requirements and maintenance concept. The report(s) shall consist of information in support of the development of the MAC and shall detail the analysis behind MAC maintenance times, maintenance levels and functional group breakdown. The summary depicts the average man-hours required to perform one occurrence of a maintenance function at a specific maintenance level. The displayed average is weighted by the task frequencies associated with the maintenance functions. Report(s) may be prepared in Contractor format and shall be
submitted with the MAC.

C.14 PROTOTYPING PHASE TECHNICAL MANUAL PREPARATIONS. The Contractor is not required to provide Technical Manuals during the prototyping phase.

C.15 PROTOTYPING PHASE TRAINING FOR GSE.

C.15.1 The Contractor shall prepare and conduct GSE CFP subsystem operator training to support the Government field evaluation of the GSE systems. The training will be at the site of the Government field evaluation (CONUS location). The Contractor shall also provide on-site technical, logistics and training support to keep the systems operational during the field evaluation and to capture lessons learned to be applied in the refinement phase. The dates for the Government field evaluation are as stated in the IMS.

C.15.2 Training Review Conference (TRC): If necessary, a Training Review Conference may be conducted as a part of program reviews. A TRC shall identify and resolve potential problems, establish milestones for contract deliverables, and discuss any areas of mutual interest to both the Government and Contractor. Subsequent TRCs may be conducted when required.

C.15.3 Safety. When conducting training that would involve hazardous operations, the Contractor shall establish detailed safety procedures and use appropriate protective equipment to ensure the safety of all training participants. Safety procedures shall include relevant notices, cautions, notes, and warnings extracted from preliminary publications, and/or any other such information sources pertinent to the equipment. The requirement for protective equipment and its proper use, e.g., hearing protection, shall also be incorporated. All such information shall be covered in detail with the students as part of the training.

C.16 PROTOTYPING PHASE SAFETY.

C.16.1 Safety Engineering. The Contractor shall ensure safety requirements specified during the GSE development effort are met. To ensure that safety tasks are suitably completed, the Contractor shall provide qualified personnel to accomplish the required safety tasks, establish the authority for implementing safety tasks through all levels of management, allocate appropriate resources, and establish lines of communication between system safety and other functional elements of the program. A summary of identified System Safety and Health hazards, and corrective actions shall be provided during each IPR. The Contractor shall identify all safety features of the GSE system hardware and software design, specific controls or precautions to be followed in the use of the system; and shall provide verification of compliance to safety requirements identified in the system specification. The Contractor shall provide required system information to support the Government safety release process.

C.16.2 Hazard Tracking. The Contractor shall use a tracking system to enter and track hazards. Hazards will not be considered closed until corrective actions have been verified by Government representatives.

C.16.3 Safety Inspection. The Contractor shall support a Government safety inspection of the system prior to soldier training / testing / operation or Government system acceptance in order to verify the information in the Safety Assessment Report (SAR). The Contractor shall allow sufficient time to correct any open or unresolved hazards prior to testing, training, and/or Government system acceptance.

C.16.4 Safety Assessment Report (SAR). The Contractor shall prepare and submit a Safety Assessment Report (SAR) for GSE system in accordance with CDRL A080. The SAR shall evaluate the safety risk being assumed prior to test or operation of the system. The SAR shall identify all safety features of the system hardware and software design, specific controls or precautions to be followed in the use of the system; and shall provide verification of compliance to safety requirements identified in the system specification. The analysis shall identify any non-compliance of safety specification requirements and provide any such justification. Justification for noncompliance is not to be construed as approval by the Government; noncompliance requires separate written approval by the Government. As a minimum, the SAR shall include the following information: Introduction, System Description, System Operation, System Safety Engineering, Materiel Safety Data Sheets, and Conclusions and Recommendations.

C.17 REFINEMENT PHASE COST CONTROL.

C.17.1 Contractor Cost Data Reporting (CCDR). The Contractor shall prepare and submit a Functional Cost-Hour, Progress Curve Report and the Cost Data Summary Report for the Refinement Phase. These documents shall all be IAW DoD 5000.04-M-1 and CDRL A110, CDRL A120, and CDRL A140. The Contractor shall prepare and submit the Contract Funds Status Reports IAW CDRL A160.

C.17.2 GSE CFE Cost As an Independent Variable (CAIV) Process. The requirements of Paragraph C.3.2 apply during the refinement phase.

C.18 REFINEMENT PHASE RISK MANAGEMENT.

C.18.1 Risk Management Process. The Contractor shall continue to maintain a risk management /mitigation process as developed in C.4.1. The Contractor shall continually track and reevaluate risk areas and assess potential component-level changes. Specific allocations of risk will continue to be managed through the IPT process.

C.18.2 Risk Reporting. Risk management and reporting shall continue to be an integral part of all technical reviews, risk review board meetings, periodic program management reviews, meetings, and IPTs as established in C.4.2.

C.19 REFINEMENT PHASE MEETINGS/CONFERENCES/REVIEWS.

C.19.1 The requirements of Paragraph C.5.1 apply during the refinement phase.

C.19.2 In-Process Reviews (IPR). The requirements of Paragraph C.5.2.2 apply during the refinement phase. The Contractor shall submit the presentation material and meeting minutes in accordance with CDRL A150.

C.19.3 Technical Manual (TM) Reviews. Technical Manual Reviews will be held at the discretion of the Government. During preparation of equipment publications, these Technical Manual Reviews will be used to clarify requirements, ensure the integration of the material is progressing, to provide guidance to the Contractor and to ensure that the data being submitted for the manual publication is written to conform to this SOW and MIL-STD-40051-2, including change 3. The Government will notify the Contractor a minimum of seven days prior to each Technical Manual Review. For planning purposes, the Contractor shall anticipate participation in at least two Technical Manual Reviews during the course of TM development. The Contractor shall submit the presentation materials and meeting minutes in accordance with CDRL A150.

C.19.4 Training Conference Reviews. Training conference requirements and schedules will be finalized as part of Training Conference #1, and updated in the IMS as required. The Contractor shall notify the Government of the exact dates and locations of each training conference at least 4 weeks prior to each conference.

C.19.4.1 Training Conference #1. This conference shall be devoted to a review of the concepts and approaches for individual and collective training to be used in preparation for Limited User Testing (LUT). The Government will provide a list of Mission Essential Tasks to be trained at each level of the unit to be trained (squad, platoon, and company). Conditions and standards for all tasks to be trained will be developed. The training conference attendees will define the training methodology for each individual and collective task.

C.19.4.2 Training Conference #2. This conference will include a review of supporting documentation used in the development of all training materials for the Limited User Test.

C.19.5 Test Readiness Review. Test Readiness Reviews shall be conducted to confirm that the GSE systems are ready for Developmental Testing and the Limited User Test prior to each test initiation. The Test Readiness Reviews shall be listed on the IMS.

C.19.6 Government Sponsored Reviews. The Contractor shall provide knowledgeable representation at the following Government quarterly sponsored reviews: Test & Evaluation (T&E) Integrated Product Team (IPT), System Engineering IPT, Supportability IPT and MANPRINT IPT.

C.20 REFINEMENT PHASE SYSTEMS ENGINEERING.

C.20.1 System Engineering Activities. The Contractor shall continue the activities and processes established during the Prototyping Phase into the Refinement Phase as needed, to support the fabrication, integration and testing of the second group of GSE systems, as defined at the CDR, to support the Government Development Testing and Limited User Testing.

C.20.2 Information Assurance and Security Engineering. The Contractor shall continue the conduct of a System Security Engineering (SSE) program and submittal of updated Information Assurance Report in accordance with SOW paragraph 6.4 and CDRL A400.

C.20.2.1 Certification Test and Evaluation (CT&E) Support. To support conduct of the LUT, CT&E events will be required at the Contractor development facility. One CT&E event will be required in the Development Test (DT) timeframe to support subsequent Limited User Testing (LUT). The CT&E event is estimated to be between two (2) and four (4) days in duration and will involve visitation of four (4) to six (6) technicians to conduct, oversee, or witness Contractor conduct of test procedures. The Contractor shall support the operation of the GSE system and interfacing developmental systems that may be required to support the test initiation, execution, and data collection processes. Contractor participation in interviews verifying compliance with non-technical IA controls, which cannot be evaluated through test, shall be required.

The Contractor shall coordinate their integration schedule with Government system engineering IPT to ensure timely CT&E conduct of appropriate GSE systems approximately 120 calendar days prior to LUT. The CT&E activity shall be included in the IMS. This coordination shall include definition of acceptable differences between CT&E and LUT test systems. For example; laboratory development hardware and software appropriately representative of ruggedized LUT GSE System will be considered if specified differences are deemed acceptable. The following will not be considered without contractor proposed risk mitigation considerations deemed acceptable by the government; (1) absence of any significant IA related functionality or (2) presence of any architectural deviations or (3) any other factor which would necessitate reaccreditation of test article as specified in AR 25-2 paragraph 5-5.b.(1),.(5),.(7), or .(9) and DoD 8510.01 paragraph 6.3.4.1. Aforementioned coordination shall be conducted within context of the Program Management IPT structure defined in paragraph C.2.4.

C.20.2.2 Compromising Emissions (TEMPEST) Controls. The Contractor shall demonstrate that GSE system meets Level II emission, Level I conduction, and NONSTOP requirements by the beginning of the Government developmental testing. These requirements are defined in NSTISSAM TEMPEST /1-92 and NSTISSAM TEMPEST/2-95. TEMPEST design principles and analysis to verify resultant performance shall be reported via the Information Assurance Report, CDRL A400. This section of the IAR, may require submittal as a classified annex, using DI-MSMT-81026 as a guide.

C.20.3 Engineering Drawings. The Government reserves the right to require delivery of engineering drawings and associated lists for replacement assemblies and spares in accordance with paragraph C.6.2.3 for GSE CFP developed at Government expense. These drawings and

lists may be the Contractors in house drawing package and shall reflect the latest configuration. The Contractor is not required to modify these in house drawings in any manner to meet this requirement. Source control and vendor item drawings are acceptable, provided that the Contractor (or subsidiaries and affiliates) is not the specified source or vendor for the item.

C.20.4 Technology Maturity Assessment (TMA). The Contractor shall deliver an updated Technology Maturity Assessment of the GSE CFP in accordance with CDRL A500. The TMA shall include, as a minimum, the same type of information stated in SOW paragraph C.6.7.

C.20.5 Post DT/LUT Support. The Contractor shall continue to improve the GSE system maturity level through analysis and demonstration based on DT and LUT feedback and CAIV initiatives. The DT/LUT testing support efforts shall be reported as part of the IPRs as called out in paragraph C.19.2.

C.21 REFINEMENT PHASE QUALITY ASSURANCE.

C.21.1 Quality Assurance System. The requirements of Paragraph C.7.1 apply during the refinement phase.

C.21.2 Quality Assurance Testing. The requirements of Paragraph C.7.2 apply during the refinement phase.

C.21.2.1 Test Inspection and Test Records. The requirements of Paragraph C.7.2.1 apply during the refinement phase.

C.21.2.2 GSE System Contractor Verification System Test (VST) Plan / Procedures. The Contractor shall provide a VST Test Plan/Procedures for GSE system that when executed verifies compliance with the GSE System Specification (see Table 4.1 of the GSE System Specification for required Contractor VST tests) and is in accordance with CDRL A600. The final Government approval of the test plan/procedures shall occur prior to commencement of Contractor VST testing.

C.21.2.3 Contractor Verification System Testing (VST). The Contractor shall verify that the GSE systems meets the GSE System Performance Specification (SPS) requirements (i.e. Section 4 of the GSE SPS, column Contractor VST) to provide the Government confidence that the GSE systems are ready for the Government DT and LUT testing. The Contractor VST testing shall be conducted in accordance with the Government approved VST test plan/procedures. Upon successful completion of the Contractor VST, the Contractor shall prepare and submit a Contractor VST test report in accordance with CDRL A650. The Contractor VST report shall address all testing performed, failures encountered and corrective actions implemented.

C.21.2.4 Environmental Stress Screening (ESS). The GSE CFP electronic subsystems / subassemblies shall be subjected to ESS with the objective being to eliminate workmanship/infant mortality failures. ESS shall be conducted on each GSE CFP electronic subsystems/subassemblies prior to the commencement of the associated system level Contractor VST testing. The Contractor shall present the ESS status during the program IPRs as appropriate. ESS records shall be made available to the Government for on-site review at any time. Highly Accelerated Stress Screening (HASS) would be considered as acceptable methodology to precipitate failure modes at GSE CFP subsystem/subassembly levels. The ESS or HASS procedures shall be documented in the Contractor VST test plan / procedures. Results from the HALT shall be used to develop ESS (or HASS) stress levels.

C.21.3 Failure Reporting, Analysis, and Corrective Action System (FRACAS). The Contractor shall establish and maintain a FRACAS program for the GSE. Failure reporting, failure analysis, corrective action analysis/implementation, and required data collection shall be conducted by the Contractor for all failures during the refinement effort. The Contractor shall investigate and analyze each reported failure to the level necessary to identify causes, mechanisms, and potential effects of the failure. Investigation and analysis of Government Furnished Property failures shall be limited to verifying that the Government Furnished Property failure was not the result of the Contractors hardware, software, or procedures. The Contractor shall submit a Failed Item Analysis Report for each failure in accordance with CDRL A660. The Government shall be notified by the Contractor of any failures that occur during system-level testing within 48 hours of occurrence. For all failures that occur, the Government shall make the final determination as to failure classification (relevant/non-relevant or chargeable/non-chargeable). The Contractor shall perform internal audits to ensure that corrective actions are effectively implemented, upon Government approval.

C.21.4 DT/LUT Testing Support. The Contractor shall provide on-site technical support during the Government DT and LUT events to ensure that the GSE systems remain operational and track failure modes. The DT/LUT testing support efforts shall be reported as part of the IPRs as called out in paragraph C.19.2.

C.22 REFINEMENT PHASE GSE SYSTEM QUANTITY. The Contractor shall fabricate, test and deliver sixty (60) refined GSE systems for the Government Developmental Testing and Limited User Testing that are fully contract compliant.

The Contractor provided peculiar support equipment, as defined in the GSE System Interface Control Document Attachment 2 (Table 3-1) shall be provided at the same time as the GSE systems, in the refinement phase quantities stated below:

CFP Peculiar Support Equipment	WBS element	Quantity	Note
Video Display Cable	1.7.5	10	See Note C.22-A
Data Logging Cable	1.7.6	20	See Note C.22-A
PAN to USB Adapter	1.7.7	10	See Note C.22-A
PAN to Ethernet Adapter	1.7.8	10	See Note C.22-A

NATO Soldier Power Cable	1.7.9	5	See Note C.22-B
Hand held Display & Cable	1.7.10.4	10	See Note C.22-B

Note C.22-A: The following GSE system specification requirements are modified during the refinement phase for this/these items as follows: no immersion, FCC-Class B EMI only, no shock, no cold temp, no driving rain, no blast overpressure, no HAEMP.

Note C.22-B: The following GSE system specification requirements are modified during the refinement phase for this/these items as follows: no immersion or HAEMP

C.22.1 OPTION EFFORT - REFINEMENT PHASE. An option exists for an additional quantity of five (5) GSE systems to the Refinement Phase. The Government shall have the unilateral right to exercise the option in accordance with clause 52.217-4001, "Separately Priced Option for Increased Quantity."

C.23 REFINEMENT PHASE RELIABILITY.

C.23.1 Reliability Program Plan. The Contractor shall continue to implement the Reliability program plan established during the prototype phase.

C.23.2 Failure Mode and Effects Analysis (FMEA). The Contractor shall, during the Refinement Phase, incorporate test results after completion of Contractor testing, and Government Testing. Any significant design changes to the system shall be reflected in the final FMEA and an update to the analysis shall be provided to the Government as part of the IPRs.

C.23.3 Reliability Verification and Reliability Growth Management. The Contractor shall continue to demonstrate to the Government the attainment of the contractor furnished property reliability requirement through a structured reliability growth program established during the prototype phase. The Contractor shall demonstrate attainment of the required reliability through a series of reliability growth test and fix phases as documented in the Reliability Program plan. The Contractor shall track the reliability to include the number of failures during each test event as well as the number of corrective actions implemented during each fix period. The FRACAS shall be applicable for this task. As a minimum, the Contractor shall demonstrate to the Government the following:

- Pre-Developmental Reliability Threshold. At the start of the Government Development Reliability Test a minimum GSE system reliability threshold of mean time between failures (MTBF) of at least 117 hours and a GSE contractor furnished property subsystem MTBF of 160 hours.
- POST Limited User Test Reliability Threshold. At the end of the Refinement Phase (end of LUT and LUT excursion tests), a minimum GSE system reliability threshold of MTBF of at least 244 hours and a GSE contractor furnished property subsystem MTBF of 340 hours.

C.24 REFINEMENT PHASE SOFTWARE.

C.24.1 Software Development. The requirements of Paragraph C.10.1 apply during the refinement phase. The Contractor shall refine, as needed, all software drivers and continue to provide technical support to the Government software activities to ensure successfully software integration of the Contractor Furnished Property and Government Furnished Property.

C.24.2 GSE Software Development Support.

C.24.2.1 Technical Support. The Contractor shall provide on-site technical support to assist the Government in the software drop 2 integration and software unit testing of the GSE soldier application with the Contractor provided CFP hardware/device drivers. This support shall be at the Government Software Integration Lab (SIL) location.

C.24.2.2 Open Framed CFP engineering refinement systems. The Contractor shall upgrade the two engineering prototype open framed units to GSE CFP open framed engineering refinement units (and update all supporting equipment & documentation) after the CDR to support GSE Soldier Application software drop 2 software development, software integration and software unit testing efforts. The open framed CFP engineering prototype systems will be returned to the Contractor once the upgraded open framed refinement systems have been verified by the Contractor to be fully functional at the Government SIL location. The open framed CFP engineering refinement systems and associated support equipment shall be maintained by the Contractor and will be returned to the Contractor at the end of the contract. The open framed CFP engineering refinement engineering systems are not part of the paragraph C.22 GSE system deliverables.

C.25 REFINEMENT PHASE INTEROPERABILITY REQUIREMENTS.

C.25.1 Systems Interoperability. The requirements of Paragraph 11.1 apply during the refinement phase.

C.26 REFINEMENT PHASE CONFIGURATION MANAGEMENT.

C.26.1 Configuration Management. The requirements of Paragraph 12.1 apply during the refinement phase.

C.26.2 Configuration Control Boards. The Contractor shall continue to support the Configuration Control Board established in the Prototype Phase with the identified Government PM representative serving as the configuration manager of the functional baseline and allocated baseline (GFP and CFP). The Contractor shall participate on the Government Configuration Control Boards through the GSE

Requirements IPT to review proposed changes to the Government controlled baselines. No change to the Government controlled baselines (functional and allocated) shall be implemented until formally approved by the PM and the Contractor has been notified by the Contracting Officer to implement the change.

C.26.3 System Baselines. The Contractor shall implement a configuration management program to manage the GSE CFP elements of the product baseline developed in the Prototyping Phase. The Government shall retain configuration control of the functional and allocated baselines, documented in the GSE System Performance Specification, GSE System software allocation matrix, GSE System Interface Control document, GSE CFP subsystem specification, GSE CFP subsystem interface control document, GSE Soldier Application Software Documentation. The GSE CFP product baseline (in terms of form, fit, function and interface) shall be documented with direct traceability to the allocated baseline. The Contractor traceability tool shall be compatible with Dynamic Object Oriented Requirements System (DOORS) tool.

C.26.4 Configuration Control Changes. The Contractor shall maintain a configuration status accounting system that provides an auditable trail of configuration changes to configuration documents. When proposing a change to the functional and/or allocated configuration documentation, the Contractor shall prepare and submit Configuration Control change requests to the Government and receive Government approval prior to implementing the requested change.

C.27 REFINEMENT PHASE ILS PROVISIONING.

C.27.1 Data Product Development And Submittal. The Contractor shall identify to the Government the most effective method of Logistics Management Information (LMI) development, delivery and strive to eliminate unnecessary intermediate steps or deliverables. The Contractor provided LMI provisioning data product shall be compatible with the Automatic Data Processing (ADP) system of TACOM Life Cycle Management Command, Integrated Logistics Support Center (ILSC), Soldier Support Integration Directorate (PSID) which uses the Army Materiel Command (AMC) developed Commodity Command Standard System (CCSS) applications program to process provisioning data.

C.27.2 Provisioning Parts List. The PPL shall be in a top-down generation breakdown structure consistent with the Maintenance Allocation Chart (MAC) developed by the Contractor during the prototyping phase. The MAC, Repair Parts Special Tools List (RSTL) and PPL organization shall be consistent and of the same sequence. The PPL mirrors the MAC/RPSTL layout and content. The Contractor shall develop and prepare the PPL with all the data elements selected by the Government from Appendix B of MIL-PRF-49506. The Government selected data elements are in Section J, Attachment 17. The PPL shall be provided by the Contractor in accordance with CDRL A730.

C.27.2.1 The PPL shall be a recommended Spares List from the Contractor to the Government for replaceable or repairable assemblies, subassemblies, and repair parts associated with the CFP. The list structured at the end item, component, or assembly level, shall contain the end item, component, or assembly equipment and all support items that can be disassembled, reassembled, or replaced, and which combined, constitute the end item, component, or assembly equipment.

C.27.2.2 The Contractor shall identify on the PPL all interchange part numbers, drawing numbers, and specification numbers for each item listed in the PPL. This data must be supported with Engineering Data for Provisioning (EDFP).

C.27.2.3 Government Acceptance. The PPL shall contain all data fields selected from MIL-PRF-49506, Appendix B, before being accepted by the Government. The PPL report shall pass the Commodity Command Standard System Provisioning Master Record (PMR) edit operation with an error rate of less than (<) 2% before final acceptance by the Government. The PMR edit operation was developed for editing certain data element values against other specific data element values to ensure compatibility.

C.27.2.4 Source, Maintenance and Recoverability (SMR) Codes. All National Stock Number (NSN) items shall be Source coded P. Procured and non-procured items should be coded consistent with Army Regulation 700-82. The Government shall determine the final SMR coding of each provisioned item on the basis of the individual application.

C.27.2.5 Essentiality Code. This code is used to indicate an end items essentiality in relationship to an Army mission or the extent to which failure of the component spare/repair part affect the ability of the end item to perform its intended mission.

C.27.2.6 The essentiality code is significant to the provisioning process in that it impacts the support item requirement determination process when availability computational models are utilized. To determine the EC for support items, the Contactor will evaluate the function of each support item in terms of its essentiality to the operational readiness of the end item or system.

C.27.2.7 PLISN Numbering. The End Item (EI) Model Record shall be numbered AAAA. Subsequent EI Model Records shall be numbered AAAB, AAAC, and so on with individual Use on Codes (UOC) for each model record.

C.27.2.8 PPL with less than (<) one thousand (1000) assemblies, subassemblies or repair parts. PPL items shall start with Provisioning List Item Sequence Number (PLISN) 0010 and each following item incremented by a minimum of 10. e.g., 0010, 0020, 0030 through 9990. Deviation of PLISN numbering shall be addressed to the Government at an IPR.

C.27.2.9 PPL with greater than (>) one thousand (1000) assemblies, subassemblies or repair parts. PPL items shall start with PLISN A010 and each following item incremented by a minimum of 10. e.g., A010, A020, A030 through A990. After A990 continue with B010, B020 through B990 and continuing with all letters of the alphabet (excluding I and O) as the first position character. The sequencing may then continue with numeric characters (0010, 0020, 0030 through 9990) Deviation of PLISN numbering shall be addressed to the Government at an

IPR.

C.27.2.10 Approved Item Name. The Contractor shall use an Approved Item Name (AIN) for all entries in the PPL and technical manual processes and procedures involving repair parts. The Contractor shall review the H6 Federal Name Directory and select the most appropriate nomenclature for the item and obtain Government approval prior to using the AIN. Selected AIN will be used in all technical manual maintenance processes and procedural references.

C.27.2.11 Proprietary Names. Trade names, copyrighted names, proprietary names that would require the use of a product or process of one company is not the preferred approach and should be minimized.

C.27.2.12 Prescreening of Part Numbers. The Contractor shall research and prescreen all submitted repair parts (CAGEC and Part Number) and technical characteristics for existing National Stock Numbers (NSN) within the Department of Defense supply system and include this information on the submitted PPL. The Contractor shall keep a record all NSN research efforts and final results. The NSN record shall be available for review if requested by the Government. The Contractor shall update the PPL and RPSTL with the Government approved SMR, CAGEC, Part Number, NSN, and description of the provisioned item as needed.

C.27.2.13 Repair Kits. The Contractor may consolidate repair parts into repair kits for assemblies if the following rules are followed:

a) Seventy percent or more of the non-common hardware parts are applied during most single repair actions.
b) Application of seventy percent or more of the kit will improve reliability of the repaired item.
c) Cost of the kit parts, less common hardware, is thirty percent or less than the item to which applied.

C.27.2.14 Bulk Items. These items will be accounted for in their normal position within the top-down generation breakdown sequence when maintenance practices establish a need for a Manufacture From item. Bulk items are items such as electrical wire, fabric, hose, or gasket material from which the repair item is made. Bulk items shall be listed for all items that are source coded M (Make).

C.27.2.15 Make Items. A minimum of two (2) Make From or Manufacture From PLISN entries are required to list an item as a bulk item. The appearance of an item using a bulk material will list the dimension used at the particular application/location and will have a unique and individual part number identifying it. The PLISN listing the actual bulk item will reflect the actual part number for the bulk material. If a portion of bulk item appears more than once, each appearance will require a PLISN listing of that portion at that location.

C.27.2.16 Bulk items are listed in the PPL by the equipment drawing number of location of where the item is to be installed and identified by a unique CAGEC and Part Number. Additional remarks in the description column identify color, size, length, or shape of these items. The stocked bulk item (bulk material the portions are manufactured from) will appear in the PPL at the end of the PLISN structure by the bulk CAGEC and part number. Bulk items shall be listed in a bulk items list at the end of the PPL in functional group 99. Bulk items list will contain the total dimensional quantity of the each item used on the end item, i.e. -- length, square foot.

C.27.2.17 Items selected to be made from bulk materiel shall also be reviewed to determine if the technical ability and tools to cut, make, assemble, and support the bulk materiel are available at the selected maintenance level. 12.22 Part Numbers and Component Color. If the repair part(s) can be procured in the required color (Green or Tan) from the source of supply, part numbers on the PPL and RPSTL shall distinctly indicate the color of the repair part, assembly, or sub-assembly. e.g., XXXX-1 for Green and XXXX-2 for Tan. This part number must be indicated on the Engineering Data for Provisioning and recognized by the source of supply. Repair parts and assemblies shall have the color of the part described in the remarks card of the PLISN entry of that item in the PPL and in the RPSTL.

C.27.2.18 Common Hardware. The Contractor shall make maximum use of existing Government numbers for all common hardware items. In all cases where they exist, the Contractor shall use Military Specifications (MIL-SPEC), Military Standard (MS), Federal Specifications (FED-SPEC) or other Government standard numbers for items such as, but not limited to, nuts, bolts, washers, wire, rope, screws, lubricants, springs, roll pins, and clevis pins.

C.27.2.19 The Contractor shall make maximum use of existing commercial or industry specifications or commercial or industry descriptions for all common and commercial items that do not have Government numbers or specifications.

C.27.2.20 Common hardware shall have the dimensional characteristics described in the remarks card of the PLISN entry of that item in the PPL and in the RPSTL.

C.27.2.21 Government Rejection of Data Product. A PPL submitted solely with Contractor unique part numbers for common hardware shall be rejected. e.g., nuts, bolts, washers, screws. A PPL submitted with place holder or inaccurate prices will be rejected. A PPL with no CAGEC for any item will be rejected.

C.27.2.22 Long Lead Time Items. The Contractor shall identify any item on the PPL that is a Long Lead Time Item (LLTI). The LLTI, which because of their complexity of design, complicated manufacturing process, or limited production capability cause extended production or procurement cycles in excess of 12 weeks.

C.27.3 Provisioning Technical Documentation (PTD). PTD is the generic term for the various provisioning lists and provisioning data as

defined in this SOW for Engineering Data for Provisioning. Supplementary Provisioning Technical Documentation is considered part of Provisioning Technical Documentation. Provisioning Technical Documentation is used by the Government for identification, selection, and determination of initial requirements and cataloging of support items to be procured through the provisioning process. The Provisioning Technical documentation shall be provided by the Contractor in accordance with CDRL A735. The PTD activities shall be included in the IMS.

C.27.3.1 Engineering Data For Provisioning. The Contractor shall develop and prepare Engineering Data for Provisioning (EDFP) which consists of Provisioning Technical Documentation (PTD) and/or Supplemental Provisioning Technical Documentation (SPTD) for all CFP items listed in the Repair Parts Special Tools List/Provisioning Parts List for the end article to ensure sustainment and maintenance support throughout the products life cycle.

C.27.3.2 Engineering Data for Provisioning is data acquired by contract to support the assignment of Source, Maintenance, and Recoverability (SMR) codes to each item on the provisioning parts list/RPSTL. The Engineering Data for Provisioning is also used for assignment of item management codes, prevention of the proliferation of identical items in the Government inventory, maintenance decisions, and item identification necessary in the assignment of a National Stock Number. Engineering Data for Provisioning, Provisioning Technical Documentation, and SPTD, as defined, may be used interchangeably within this SOW.

C.27.3.3 SPTD is technical data used to describe repair parts and/or equipment and consists of data such as specifications, standards, drawings, photographs, sketches, descriptions, quantities, and the necessary assembly and general arrangement drawings, schematic diagrams, wiring and cable diagrams, etc., needed to indicate the physical characteristics, location, and function of the item. SPTD shall be provided for all items listed in the Repair Parts and Special Tools List (RPSTL) without a National Stock Number (NSN). Additionally, all items listed on the PSPL will require Engineering Data for Provisioning, if no NSN exists.

C.27.3.4 SPTD should be provided in the following order of precedence:

a) Government or recognized industry specification or standard
b) Engineering drawing
c) Commercial Item Description (CID)
d) Commercial catalog pages or catalog descriptions
e) Sketches or photographs with descriptions or a bill of material

C.27.3.5 At a minimum, the technical documentation shall provide the following: SPTD shall clearly and completely identify and describe the item and who, Commercial and Government Entity Code (CAGEC), either manufactures the item or from whom the item was purchased, and cost of the item. The Contractor shall provide Original Equipment Manufacturer (OEM) data for all CFP items on the PPL.

C.27.3.6 Items procured from OEM sources and altered or modified shall have a unique and separate drawing that indicates what modification is completed on the provisioned item and a Contractor CAGEC and Contractor unique part number. The Engineering Data for Provisioning shall include the necessary information to identify the item prior to its alteration including the original part number and the name and CAGEC of the source of the original part.

C.27.3.7 Supplier/Distributor part numbers and Engineering Data for Provisioning are not desirable and every effort should be made to furnish OEM data. The Contractor shall supply a minimum of three (3) sources for any CFP item only available from a Supplier/Distributor.

C.27.3.8 Provisioning Technical Documentation shall provide technical identification of CFP items for maintenance of end items to include location within the next higher assembly, e.g., internal location of an electrical component within an engine starter assembly. If the drawing, commercial literature, specification or standard does not identify the location of the part within the end item, then a sketch or illustration must be attached to that specific document. Technical Manual RPSTL art will be sufficient to meet this requirement when provided with the Engineering Data for Provisioning.

C.27.3.9 SPTD shall clearly indicate the physical characteristic(s) and/or specification(s) of the CFP item or assembly. e.g., color, type of paint, dimensions, radius, thickness, dimensions, inlet/outlet dimensions, pressure range, length, width, height, shape, surface treatment, thread size, thread type, type of materiel, wall thickness, amperage, voltage.

C.27.3.10 Government Rejection of Data Product. The Government shall reject any submitted Engineering Data for Provisioning if the technical documentation of the individual Engineering Data for Provisioning is not sufficient to clearly outline the technical specifications and dimensions of the provisioned CFP item. Engineering Data for Provisioning submitted without a CAGEC for any item will be rejected.

C.27.3.11 Marking of Engineering Data for Provisioning. Provisioning technical data shall be clearly annotated with the Provisioning Contract Control Number (PCCN), Provisioning Control Code (PCC), Provisioning Line Item Sequence Number (PLISN), Commercial And Government Entity Code (CAGEC) and manufacturers part number. Technical data and Engineering Data for Provisioning shall match the data/drawing to the PLISN on the Provisioning Parts List (PPL) for all CFP items. On Associated List, the alphanumeric numbering (PLISN) will appear next to the item identification. The Engineering Drawings
and Associated List will be provided in Alpha Numeric numbering (PLISN) sequence to be compatible with the PPL. If commercial

literature is provided, the CAGEC and Alphanumeric (PLISN) numbering will be annotated next to the appropriate manufacturers part number with the PCCN. The specification or standard must also have the alpha numeric (PLISN) numbering annotated next to the specific item.

C.27.3.12 Engineering Drawing Tree. The Contractor shall provide a top-down generation breakdown engineering drawing tree of the CFP end item with sufficient detail so that the Government can verify the Next Higher Assembly (NHA) for each item listed on the PPL and associated Engineering Data for Provisioning. The drawing tree shall clearly show what functional group the assembly, subassembly and/or part is a part of and the NHA.

C.27.3.13 Contractor Certification. The Contractor shall conduct a verification of Provisioning Technical Documentation and SPTD against the Government approved end item configuration to assure that each item identified on Provisioning Technical Documentation and SPTD is accurately depicted at the time of submission of Provisioning Technical Documentation and SPTD. This configuration audit shall be a letter included with the Engineering Data for Provisioning submission that states certification of the Provisioning Technical Documentation/SPTD against the end article.

C.27.3.14 Electronic submittals of Provisioning Technical Documentation and/or SPTD shall also contain a Microsoft Office Excel spreadsheet with all MAC functional groups listed with related assemblies, subassemblies, and repair part numbers for that functional group and corresponding PLISN number. The spreadsheet shall be in the same order of the MAC and starting with figure 1 of the RPSTL/PPL. These items shall contain a HYPERLINK that connects or jumps from the RPSTL part number to the Engineering Data for Provisioning document(s) stored on the electronic media. Electronic submittals must contain separate Engineering Data for Provisioning files titled to match the MAC Functional Group Code (FGC). Each MAC Functional Group shall have a corresponding electronic file that contains the individual Provisioning Technical Documentation, and/or SPTD for that group. Electronic submittals must title each individual Provisioning Technical Documentation, and/or SPTD PDF file with the drawing number or part number.

C.28 REFINEMENT PHASE TECHNICAL MANUAL (TM) PREPARATION SUPPORT.

C.28.1 The Contractor shall provide to the Government, GSE CFP subsystem operator and maintenance data and artwork required to adequately document the GSE CFP subsystem operator and maintainer related tasks. The Contractor shall also provide technical and logistics support to the Government GSE technical manual development team to integrate the Contractor operator and maintenance manual information into the Government generated GSE operator and maintainer technical manuals. The Contractor shall provide the technical manual support data in accordance with Section C.28, associated C.28 subparagraphs and CDRL A750.

C.28.2 Photographic Support. In supporting the Governments GSE technical manual development effort, the Contractor shall ensure that personnel in photos, when visible, will be attired in proper U.S. Army work/utility uniform. All personnel, when photographed, will be wearing all safety equipment necessary to perform the procedure being illustrated, and will be photographed complying with all safety requirements as specified in the procedural text.

C.28.3 TM Requirements Matrix Compliance. The Contractor shall use the TM Requirements Matrix (Attachment B) from MIL-STD-40051-2, including change 3, to organize and develop the GSE CFP subsystem technical manual content. All items marked R in the matrix are required to support the equipment and shall be included in the order established in the matrix. All shaded items shall be included as required to support the equipment, and if included, shall be included in the order established in the matrices. All items marked P in the matrix are prohibited and shall not be included in the manual.

C.28.4 Maintenance Allocation Chart (MAC) Development. All maintenance procedures identified in the Government-approved GSE Maintenance Allocation Chart (MAC) (CDRL A070) shall have corresponding maintenance, troubleshooting or Preventive Maintenance Checks and Services (PMCS) procedures within the TM, as applicable as it relates to the CFP subsystems. The MAC introduction and MAC tables shall be updated to conform to format and content requirements as detailed in MIL-STD-40051-2, including change 3. All item names of MAC functional groups shall be official nomenclature in accordance with the RPSTL nomenclature. The MAC shall also be updated to include changed or additional components and their corresponding maintenance functions as applicable.

C.29 REFINEMENT PHASE TRAINING FOR GSE.

C.29.1 Scope. The Contractor shall develop Mission Collective / Individual Task data, Programs of Instruction, and Lessons Plans for the GSE CFP subsystem and provide support to the Government GSE training development team to integrate the Contractor training material with the overall Government GSE system training package. Upon approval of all the GSE CFP subsystem training material by the Government, the Contractor shall provide the necessary number of copies for conduct of the training courses as well as visual aid devices during presentations, such as diagrams, wall charts, schematics, practical exercise sheets, etc. Sets of the GSE CFP subsystem training materials shall be developed for each training event which include: Government developmental test and Limited User Test.

C.29.2 The instruction shall be a combination of classroom and Practical Exercise (PE) (hands-on) training. PEs shall be conducted using the equipment to teach operation, assembly and disassembly, inspection, testing, troubleshooting, repair, and safety procedures as applicable. This training is required to provide Government personnel with the knowledge, technical qualifications, and reference materials necessary to perform all operations, operator maintenance, and field level maintenance tasks required to successfully accomplish their assigned mission.

C.29.3 Mission, Collective, Individual, and Occupational Training Task Analysis Report. The instruction shall consist of 25% classroom

and 75% practical exercise (hands-on). Classes should consist of approximately (estimated) 16 hours of operator and 16 hours of maintenance, with the final length of class to be determined by the Government developed GSE system Mission, Collective, Individual, and Occupational Training Task Analysis Report. The Contractor shall provide the GSE CFP Subsystem Mission, Collective, Individual, and Occupational Training Task Analysis Report in accordance with CDRL A760. The length of each class will be determined by both Government and Contractor.

C.29.4 GSE Program of Instruction (POI) for Operators. The Contractor shall develop and deliver a GSE CFP Subsystem POI for Operators in accordance with CDRL A761. The length of each POI and class hours will be determined by both Government and Contractor representatives during the Training Review Conference (TRC), if a TRC is required, and/or after Government review and acceptance of the Mission, Collective, Individual, and Occupational Training Task Analysis Report.

C.29.5. GSE Program of Instruction (POI) for Maintainers. The Contractor shall develop and deliver a GSE CFP Subsystem Program of Instruction for Maintainers (Field Level) in accordance with CDRL A762. The length of each POI and class hours will be determined by both Government and Contractor representatives during the Training Review Conference (TRC), if a TRC is required, and/or after Government review and acceptance of the Mission, Collective, Individual, and Occupational Training Task Analysis Report.

C.29.6 Lesson Plans for GSE Operators. The Contractor shall develop and deliver technical training course material in the form of Lesson Plans (LP) for GSE Operators, in relation to GSE CFP Subsystem operation, in accordance with CDRL A763. Each lesson plan shall include all information for initial set-up, operation, operator troubleshooting, maintenance, and Preventive Maintenance Checks and Services (PMCS) that can be performed on the GSE CFP subsystem at the operator level.

C.29.7. Lesson Plans for GSE Maintainers. The Contractor shall develop and deliver technical training course material in the form of Lesson Plans (LP) for GSE Maintainers, in relation to GSE CFP Subsystem maintenance, in accordance with CDRL A764. Each lesson plan shall include all information to conduct PMCS, trouble shooting, and maintenance at the Field level on the GSE CFP Subsystem.

C.29.8 Safety. The requirements of Paragraph C.15.3 apply during the refinement phase.*

C.30 REFINEMENT PHASE SAFETY.

C.30.1 Safety Engineering. The Contractor shall continue to ensure safety requirements specified during the GSE development effort are met in accordance with paragraph C.16.1.

C.30.2 Hazard Tracking. The hazard tracking system requirements of Paragraph C.16.2 apply during the refinement phase. The Contractor shall continue to update / maintain the hazard tracking system developed in paragraph C.16.2.

C.30.3 Safety Inspection. The safety inspection requirements of paragraph C.16.3 shall apply during the refinement phase.

C.30.4 Safety Assessment Report (SAR). The Contractor shall update the Safety Assessment Report (SAR) for GSE system based on the DT and LUT GSE system configurations in accordance with CDRL A800 and paragraph C.16.4.

* Revised by Amendment 0001.

*** END OF NARRATIVE C0001 ***

SECTION H - SPECIAL CONTRACT REQUIREMENTS

H.1 Option CLIN

H.1.1 The Government shall have the unilateral right to exercise an option for the effort referenced in Section C, paragraph C.22.1. The Government may exercise this option at any time after contract award but no later than 225 days after contract award.* If exercised, the option effort will be awarded on a cost-plus-fixed-fee basis for the amount stated in Section B under CLIN 0003. The period of performance of the option effort shall coincide with the period of performance of the Refinement Phase as defined in Section F.6.

H.2 Organizational Conflict of Interest

H.2.1 The Contractor and its subcontractors, consultants, parents, subsidiaries, joint ventures, or other business affiliates of any tier may be excluded from performing under this GSE contract if the Contracting Officer finds an organizational conflict of interest due to bias or unfair competitive advantage. A similar provision is expected to apply to follow-on GSE solicitations and contracts. Exceptions may be granted by modification to the contract for relationships where the Government agrees that either 1) the potential for bias or unfair competitive advantage is essentially non-existent, 2) a means of controlling the relationship to effectively neutralize the potential conflict can be reached, or 3) there is no way to perform the Governments requirements without such potential. This restriction begins on the date of award of this contract or any subcontract or other relationship hereunder and expires on the completion of the contract/subcontract.

H.2.2 The Contractor shall flow down this provision in any subcontracts or other related instruments (of all tiers). The Contractor shall monitor activities of itself and subcontractors and related entities, and promptly disclose any actual or potential OCOI and any actions taken or proposed to negate or mitigate such conflicts.

H.2.3 Remedies. For breach of any of the above restrictions or for nondisclosure or misrepresentation of any relevant facts required to be disclosed concerning this contract, the Government may terminate the contract for default, disqualify the Contractor for subsequent related contractual efforts and pursue such other remedies as may be permitted by law or this contract.

H.3 Data Rights Escrow Clause

H.3.1 If the Contractor asserts restrictions of rights for technical data and computer software items in accordance with DFARS 252.227-7017, "Identification and Assertion of Use, Release, or Disclosure Restrictions," or DFARS 252.227-7028, "Technical Data or Computer Software Previously Delivered to the Government," the listing may be incorporated as part of the resulting contract document as an Attachment in Section J. The data and software listed in the Attachment may be delivered with restrictions, consistent with the associated restrictive markings. If the Government questions the validity of the restrictive marking of a deliverable, the Government may choose to make a comparison of the baseline items identified in the Attachment to the contract deliverable.

H.3.1.1 If the Contractor asserts restrictions of rights for technical data, as described in H.3.1 above, the Contractor shall then establish an escrow account to set the baseline for restricted technical data and software asserted in the Attachment. All items identified in the listing of Assertions of Restriction in the Attachment are to be deposited into the escrow account, unless otherwise agreed by the parties and noted in the Attachment. In the event of a need to compare a contract deliverable against the baseline status of the item pre-award, the Government may access the escrowed item. The escrowed material shall be the sole basis of measurement to determine validity that the item was developed other than exclusively at the Government's expense.

H.3.1.2 The inclusion of technical information or software into the escrow deposit does not constitute an agreement by the Government that those items were developed partially or exclusively at private expense. The Government reserves the right to investigate whether the item in escrow was developed with Government funding under a prior Government contract.

H.3.2 Establishment of Escrow Account

H.3.2.1 If the Contractor asserts restrictions of rights for technical data, as described in H.3.1 above, the Contractor shall establish an escrow account with a third party Escrow Agent for the technical data and software asserted in the Attachment. The establishment of the account shall include a three party agreement between the Contractor, the Government, and Escrow Agent and shall be in accordance with the terms specified in this clause. It shall be a term of such three way escrow agreement that any activity in the escrow account can only occur with prior written notice to and written approval by the Contracting Officer / Government Beneficiary. Such written notice and written approval may occur by a properly directed e-mail. The finalized three party agreement shall be included, post award, as Appendix A to the Assertions of Restriction Attachment to the contract.

The Contractor shall have up until thirty (30) days after contract award to establish the escrow account with the third party Escrow Agent.

H.3.3 Escrow Deposit

The Escrow Deposit shall consist of the Initial Deposit and any appropriate Secondary Deposits.

H.3.3.1 Initial Deposit

H.3.3.1.1 The Initial Deposit with the third party Escrow Agent must be made thirty (30) days after contract award, unless otherwise agreed by the Government and the Contractor. Except for conditions identified in subsection (e)(3) of DFARS 252.227-7013 and 252.227-7014 (addressed below), the Initial Deposit, which shall comprise the entirety of the Escrow Deposit, shall be the only documentation to serve as the basis for establishing validity to which the Contractor will be allowed to resort, if and when a need to access the Escrow Deposit arises. (A written explanation from the Contractor, not part of the Initial Deposit, may be allowed at the discretion of the Contracting Officer, but no additional documentation beyond what is in the Escrow Deposit will be allowed.)

H.3.3.1.2 The Escrow Deposit shall be organized such that the contents are clearly labeled and bundled to correspond with the designations given to the Government in the Assertion of Restrictions Attachment listing.

H.3.3.1.3 The Escrow Agent will give notice to the Government confirming receipt, date and contents listing (consistent with the Assertion of Restrictions listing) or each Initial Deposit.

H.3.3.2 Interim Deposit

H.3.3.2.1 In the event that the Escrow Account has not been established (i.e., an Escrow Agreement between Contractor-Government-Escrow Agent has not yet been finalized and signed) by a date thirty (30) days after contract award, the Escrow Deposit shall be made as an Interim Deposit with a designated Government Attorney. Such Interim Deposit shall be received by the designated Government Attorney, at a previously designated address, on or before the thirtieth (30th) day after contract award, or if this date falls on a weekend or holiday, the next business day. The Contractor will notify the Government of the need to use the Interim Deposit procedure one (1) week before the thirtieth (30th) day after contract award and the Government shall provide the designated address of the designated Government Attorney within 72 hours thereafter. As the Interim Deposit will become the Initial Deposit, it is to be organized as described above.

H.3.3.2.2 The Government Attorney will receive the Interim Deposit at the designated Government address. The Interim Deposit will be shipped in a sealed container and will be appropriately marked as the Interim Deposit for the (named) Contractor. The Government Attorney will not open the Interim Deposit, but will safeguard it and maintain it in a sealed condition. Once the Escrow Account has been established, the Government Attorney will ship the Interim Deposit to the Escrow Agent, where it will constitute the entire Initial Deposit. If an Escrow Agent is never established with a third party, the Interim Deposit will constitute the Escrow Account. The Government Attorney will then be designated as the Escrow Agent.

H.3.3.3 Secondary Deposit

H.3.3.3.1 Secondary Deposits will be accepted under the exceptional circumstances defined by subsection (e)(3) of both DFARS clauses 252.227-7013 and -7014. Secondary Deposits will be allowed into Escrow Account / Deposit at the request of the contractor (or sub-contractor), but physical acceptance of the Secondary Deposit into the Escrow Account will not constitute waiver of the Government's right to challenge the proprietary of such additional Assertion of Restrictions and its associated Secondary Deposit, as provided under applicable DFARS clauses.

H.3.3.3.2 The precise and complete contents of any Secondary Deposit accepted into the Escrow Account / Deposit, as well as the dates of the same, will be maintained by the Escrow Agent. Such contents will not be intermingled with prior Deposits in any way which destroys the ability of all parties to discern the date and contents of each separate Escrow Deposit. The contents of Secondary Deposits are to be adequately organized, as described above for the Initial Deposit. Such content will be identified by a sufficiently detailed itemization, consistent with the additional Assertion of Restrictions listing due per subsection (e) of DFARS 252.227-7013 and 252.227-7014, but will not divulge the technical details of the deposited items.

H.3.3.3.3 The Escrow Agent will give notice to the Government confirming receipt, date and contents listing (consistent with the additional Assertion of Restrictions listing) of each Secondary Deposit.

H.3.4 Access to Escrow Account

H.3.4.1 The Government will limit its access to the contents of the Escrow Account / Deposit only as needed to implement the Government's rights to the resort to the procedures of applicable DFARS clauses.

H.3.4.2 Access by the Government to the Escrow Deposit, or portions thereof, will be made only when a contract deliverable has been made with restrictions and the Contracting Officer finds it is necessary to compare the deliverable against the pre-award condition of that same item. The Government has the unilateral right to decide whether to access the Escrow Deposit to make the desired comparison. The Government will notify the Contractor of its intent to access the account and of the items to be accessed. After notification, and at the Contracting Officer's discretion, the Contractor may be allowed to provide explanation for the restriction being asserted per DFARS 252.227-7019 and 252.227-7037. The written explanation shall reference the documentation of the escrowed item, but shall not offer any additional documentation. Only the documentation provided in the Escrow Deposit will be entertained as the basis for evidencing development of that item prior to contract award other than exclusively at Government expense, though written explanation may explain that documentation. Thereafter, the remaining procedures of DFARS 252.227-7019 and 252.227-7037 shall apply.

H.3.4.3 If access to the Escrow Deposit is required, only those portions of the Deposit relevant to the specific items at issue will be accessed and access to other items not at issue will not be made. It shall be the responsibility of the Escrow Agent to make a copy, and certify accuracy of same, of the items the Government requests to make the comparison. The Escrow Agent will then deliver to the Government the certified copy of the requested items. The Escrow Agent will provide the Contractor a list of items provided to the Government.

H.3.4.4 The material copied by the Escrow Agent from the Escrow Deposit will be destroyed by the Government when the Government completes its need to be in possession of the escrow item to accomplish the necessary analysis and comparison of the escrow item to the contract deliverable.

H.3.5 Term & Termination

H.3.5.1 The Escrow Account shall be maintained until the end of all relevant challenge period(s), per all applicable DFARS clauses, and through any ongoing litigation. After the end of all the challenge period(s) and any associated litigation, the three-way escrow agreement, and the Escrow Account, shall be terminated per agreement between the Contractor and Government. The Escrow Agent shall terminate the account after written notification of termination from both parties, each party copying the other with such written notification. Any material remaining in the Escrow Account, per the directions of the Contractor, will be returned by the Escrow Agent (at Contractor's expense) or destroyed by the Escrow Agent.

* Revised by Amendment 0001

*** END OF NARRATIVE H0001 ***

SECTION I - CONTRACT CLAUSES

Status	Regulatory Cite	Title	Date
I-1 CHANGED	52.217-4001 (TACOM)	SEPARATELY PRICED OPTION FOR INCREASED QUANTITY	FEB/2007

(a) The Government may require the delivery of the numbered item, identified in the schedule as an option item, in the quantity and at the cost plus fixed fee stated in the schedule. This option may be exercised by the Government at any time, but in any event not later than 225 days after either (i) award or, if FAT is required, (ii) after FAT approval.* In addition, such option may be exercised in increments, subject to the stated total additional quantity limitations, price(s), and the above-stated time for exercise of the option.

(b) Delivery of the items added by the exercise of this option shall continue immediately after, and at the same rate as, delivery of like items called for under this contract, unless the parties hereto otherwise agree.

(c) Additionally, prior to the expiration of the original option period identified in paragraph (a) above, the Government may seek a bilateral extension of the option period for an additional period not to exceed 90 days from the expiration date of the original option period.

* Revised by Amendment 0001

[End of Clause]

Name of Offeror or Contractor:

SECTION J - LIST OF ATTACHMENTS

List of Addenda	Title	Date	Number of Pages	Transmitted By
Exhibit A	CONTRACT DATA REQUIREMENTS LIST	14-JAN-2009		
Attachment 0001	GSE SYSTEM PERFORMANCE SPECIFICATION (SPS)	16-DEC-2008		
Attachment 0002	GSE SYSTEM INTERFACE CONTROL DOCUMENT (ICD)	16-DEC-2008		
Attachment 0014	GOVERNMENT OVERARCHING CONTRACT SCHEDULE	12-JAN-2009		
Attachment 0018	GSE HARDWARE ALLOCATION & ASSESSMENT MATRIX	06-JAN-2009		
Attachment 0020	GSE POWER MISSION PROFILE	06-JAN-2009		

SECTION L - INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS
SECTION L INSTRUCTIONS, CONDITIONS AND NOTICES TO OFFERORS

L.1. The proposal, subject to the Submission, Modification, Revision and Withdrawal, paragraph of Instructions to Offerors - Competitive Acquisitions (52.215-1, ALT I) contained in Section L of the RFP, shall be submitted in the format and quantities set forth below. All information necessary for the review and evaluation of a proposal must be contained in the proposal volumes set forth below. Section M of the RFP sets forth the evaluation criteria and delineates the Factors and Subfactors to be evaluated and their relative order of importance. The Offeror's proposal, as required by this section, shall be evaluated as set forth in Section M of this RFP.

L.1.1. The Offeror's proposal shall be submitted in five (5) separate volumes as set forth below. Some parts of the proposal contain page recommendations as set forth in the balance of Section L below. Where page recommendations are specified, they are based upon standard 8.5" x 11" paper with a minimum font size of 10 pt. (except the captions of graphics may be a minimum font size of 8 pt.) and with a minimum of .5" margins. A Proposal Executive Summary or transmittal letter describing your understanding of the required effort is recommended. It will not be considered as part of the responses called for in the five proposal volumes required below, unless specifically referenced therein. If a Proposal Executive Summary or transmittal letter is submitted, it must be submitted as a separate volume from the five volumes set forth below and it is recommended to be no more than five (5) pages.

a. Technical Volume. Submit two (2) CD-ROMs and eight (8) identical sets of paper copies. The content of the Technical Volume submitted via CD-ROM and paper copies must be identical.

b. Program Management Volume. Submit two (2) CD-ROMs and six (6) identical sets of paper copies. The content of the Program Management Volume submitted via CD-ROM and paper copies must be identical.

c. Past Performance/Small Business Participation Volume. Submit two (2) CD-ROMs and three (3) identical sets of paper copies. The content of the Past Performance / Small Business Participation Volume submitted via CD-ROM and paper copies must be identical. The Offeror shall request that the COR, PCO or commercial contractor representative complete the Past Performance Questionnaire (as described further in Section L) and forward it to the contract specialist via email to harmony.hunsanger@us.army.mil no later than five (5) days before the due date of this RFP.

d. Cost Volume. Submit two (2) CD-ROMs and three (3) identical sets of paper copies. The content of the Cost Volume submitted via CD-ROM and paper copies must be identical.

e. Proposal Terms and Conditions Volume. Submit two (2) CD-ROMs and three (3) identical sets paper copies. The content of the Proposal Terms and Conditions Volume submitted via CD-ROM and paper copies must be identical.

L.1.2. Each volume listed above shall be submitted on a separate set of CD-ROMs to facilitate Government review. Each CD-ROM shall be labeled so that it is easily identifiable for evaluation purposes (example Technical Volume, Set 1 of 5, CD 1 of X). Each volume shall include a (i) title page, (ii) table of contents, and (iii) list of tables and figures. Each page of the proposal shall be numbered, and each section of the proposal shall have a reference number.** The table of contents shall be organized by subfactor and consideration as set forth in Section L. Include the list of all attachments and substantiating data in the table of contents under the specific subfactor or consideration that it supports. The table of contents shall include the following information for each subfactor, consideration, attachment and/or substantiated data listed:

Cross-reference to related section L paragraph number
Page number
CD-ROM Volume and number
File Name

L.1.3. Submission Due Date. The Offerors proposal shall be received at the address set forth below no later than 2:00 PM EDT on the 02/09/2009. Offeror must ensure its offer, in its entirety, reaches the US Army TACOM LCMC (TACOM-LCMC), TACOM Contract Center (AMSCC-TAC), Warren, Michigan before the date and time set for closing of the RFP.
Do not submit any classified data in any of the volumes as stated above. No classified data is required to be submitted as part of this proposal.

L.1.4. After compiling all required information, submit the information to the address below. All offers delivered in response to this RFP, hand-carried or submitted via U.S. mail, shall be addressed as follows:

U.S. Army TACOM-LCMC
Contracting Center
Office Receipt Office,
Building 231, Room 1300, AMSCC-TAC-HMG
6501 East 11 Mile Road
Warren, MI 48397-0001

RFP Number: W56HZV-09-R-0020

(2:00 PM EDT. 02/09/2009)

TO BE DELIVERED UNOPENED

(Offerors Name)

L.1.5. Method of Submission. Offers may either be hand-carried or submitted via US mail. Electronic mail or facsimile of proposals and modifications are not authorized. Hand-carried submissions* (includes offers delivered by commercial carriers, i.e. FedEx or services other than US Postal Service): Hand-carried offers must be delivered to the Detroit Arsenal (DTA) Mail Handling Facility (Building 255) between the hours of 8:00 AM and 1:00 PM EDT. The package(s) will be dated and time stamped at the Mail Handling Facility and the Government will be responsible for forwarding the package(s) to the Bid Lobby. Offerors should ensure that any commercial carrier they may use has a tracking system that can provide documentation that will prove the date and time of delivery to the Government. If the offer is hand-carried by other than a commercial carrier, the delivery person (even if an employee of the Offeror) must be a US citizen, and must obtain a signed receipt, showing date and time of delivery, from Mail Handling Facility personnel.

* Directions to Detroit Arsenal (DTA): From Van Dyke Avenue, travel west on East 11 Mile Road approximately \'bd mile to railroad track. Immediately after crossing railroad track turn right into Detroit Arsenal (DTA) main gate and follow security officers directions to the Mail Handling Facility (Building 255). It may be necessary for the delivery person to obtain a visitors badge prior to being allowed to enter the installation. If so, the security officer will advise the delivery person of the procedure to follow.

Exterior envelopes must identify the RFP number and date specified for receipt of offers.

Offerors are cautioned that approval to enter the base must be obtained prior to the closing date for receipt of proposals. Follow the procedures outlined in the paragraph above for entry. Due to security procedures, delays are probable at the entry point and Offerors must plan to accommodate them. Late receipt of proposals due to base entry delays might not be deemed excusable; the Contracting Officer might declare the proposal late and remove it from consideration.

L.1.6. For the following proposal submission documents, specific features, characteristics, or the entire documents themselves may be incorporated into the contract at time of award:

- CFP Subsystem Performance Specification (the Government intends to incorporate this document in its entirety at award)
- Reliability Program Plan (RPP)
- Integrated Master Schedule (IMS)
- Integrated Master Plan (IMP)
- IA Stance Worksheet

L.2. All or None. Offers in response to this RFP must be submitted for all the requirements identified in the RFP. Offers submitted for less than all the requirements called for by this RFP will not be considered for award.

L.3. Alternate Proposals. Offerors may submit multiple alternate proposals with differing approaches to meeting the requirements. The Government will separately evaluate each alternate proposal received. Therefore, each alternate offer submitted must be a complete, comprehensive, stand-alone proposal, which is fully responsive to the information requested in the RFP. Alternate offers must be clearly identified and submitted entirely separate with their own proposal set of CDROMs. All proposals shall clearly identify why the acceptance of the proposal would be advantageous to the Government. Any proposed deviations from the terms and conditions of the RFP, as well as the comparative advantage to the Government, shall be clearly identified and explicitly defined and may be cause for rejection of the proposal. An Offeror will only be eligible to receive one (1) award regardless of the number of proposals it submits. It is the Governments intent to award up to three (3) contracts to three (3) separate Offerors competing independently that do not share a common parent, do not have a parent/subsidiary relationship with the other awardee(s), and are not affiliates (as defined in FAR 19.101) of the other awardee(s).

L.4. Technical Factor Volume. The Technical Factor Volume includes the Subfactors of (1) System Engineering and (2) Hardware.

L.4.1. System Engineering Subfactor.

L.4.1.1. The Offeror shall describe its technical approach it proposes to employ to perform in accordance with SOW C.6.1, C.6.3, C.6.3.1, C.6.5.1, and C.6.12.

L.4.1.2. The Offeror shall submit Section 3 (Performance Requirements) of the GSE Contractor Furnished Property (CFP) Subsystem Performance Specification (defined in SOW C.6.2) as a stand alone document within the Technical Volume. The Offeror shall include a detailed traceability matrix from the GSE System Performance Specification (Section J, Attachment 0001), System Interface Control Document (ICD) (Section J, Attachment 0002), and GSE System Software Allocation Matrix (Section J, Attachment 0019, Worksheet B) to the GSE CFP Subsystem Performance Specification.

L.4.1.3. The Offeror shall describe its proposed Information Assurance (IA) architecture in performing the requirements of SOW C.6.4 and GSE System Performance Specification paragraph 3.2.4.1 (and its subparagraphs), to develop an Information Assurance (IA) compliant

system. It is recommended that the proposed IA architecture be submitted in no more than five (5) pages.

L.4.1.3.1 The Offeror shall complete the GSE Information Assurance (IA) Stance Worksheet.xls (Section J, Attachment 0013) following the instruction provided in the Instructions tab. Please note that the Responsible Entity column shall indicate the operational entity (e.g. hardware, software, personnel or procedure) that satisfies the controls intent versus the development organization which will implement the control. This document shall be submitted as a stand alone Microsoft Excel document within the Technical Volume.

L.4.1.4. Reliability Program Plan (RPP). The Offeror shall submit a RPP, as a stand alone document within the Technical Volume that contains the following information:

a. A description of the Offerors understanding and approach to perform the reliability requirements as specified in the GSE SOW C.9. The Offeror shall describe their reliability program management process to include personnel resources, organizations role, qualifications, supplier/vendor monitoring and controlling processes.

b. A description of the Offerors process for designing in reliability and a progressive assurance plan that shows how the requirements will be demonstrated. The progressive assurance plan shall include, at a minimum, a list of reliability engineering, design, accounting and verification tasks. The plan shall describe the interaction between the reliability and system engineering activities to include the allocations of the reliability requirements and parts selection.

c. A description of how the Offeror plans to demonstrate through a reliability growth program that the Contractor Furnished Property, when integrated with the Government Furnished Property will achieve the GSE system level reliability requirements. The proposed reliability growth program shall be in-line with the Government defined idealized GSE Reliability Growth Planning Curve (Section J, Attachment 0010) and shall include a series of Test and Fix phases. The Offeror shall describe how their CFP reliability growth will be tracked and their planned strategy to address corrective actions during each test and fix phase.

L.4.1.4.1. The RPP shall be submitted as separate stand alone document within the Technical Volume, and it is recommended that it should be submitted in no more than fifteen (15) pages.

L.4.2. Hardware Subfactor. The Offeror shall complete and submit the following:

a. The GSE Hardware Allocation and Assessment Matrix (Section J, Attachment 0018). The Offeror shall provide supporting rationale to substantiate the realism of each of the data items input into the Hardware Allocation and Assessment Matrix.

b. The projected GSE system power consumption over a 24 hour mission duration using the GSE Power Mission Profile (Section J, Attachment 0020).

c. The projected remaining available power [using two LI-145 batteries (145 W/hr each) as the GSE power source] at the end of the 24 hour mission.

d. Provide the current Technical Readiness Level (TRL), reference the Department of Defense, Technology Readiness Assessment (TRA) Deskbook, May 2005, Prepared by the Deputy Under Secretary of Defense for Science and Technology (DUSD(S&T)), for each CFP item listed in the Hardware Allocation and Assessment Matrix. Provide rationale supporting the realism of the current TRL for each CFP item and describe how the Offeror proposes to ensure that the CFP items when integrated with GFP items will pass the testing requirements identified in Table 4-1 (Performance Requirements Verification Cross-Reference) of the GSE System Performance Specification by the end of the contract.

L.5. Program Management Factor Volume.

L.5.1 The Offeror shall describe its program management approach (recommended page count is 35 pages) in the following manner:

L.5.1.1. General Approach: The managerial approach to performing the contract requirements. The Offeror shall describe its approach to managing/supporting the integration of the software and hardware aspects of the program. The Offeror shall include the organizational structure and demonstrate how it interacts with the Government. The Offeror shall clearly define the relationship between the program and the overall corporate structure, the reporting responsibilities, lines of authority, the role of upper and functional (matrix) management, the role of subcontractors, decision making authority, and the communication processes.

L.5.1.2. Personnel: The details of the project work force including special skill requirements, necessary training and staffing plan.

L.5.1.3. Risk Management: Describe how risk areas will be tracked and managed during the program.

L.5.1.4. Change Management Process: Approach to control / manage change from established baselines.

L.5.1.5. Information Assurance (IA): The Offeror shall submit the following:

L.5.1.5.1. Clearly state its approach to structure and execute an IA program to support the IA requirements of the contract.

L.5.1.5.2. Outline the Offerors concept of operations, to include skills and capabilities to perform the IA requirements of the contract and which team member will provide the IA capabilities.

L.5.1.5.3. Demonstrate capability and experience in the area of (1) understanding the IA requirements, (2) demonstrating their companys capacity for meeting GSE related IA requirements outlined in the System Performance Specification (Section J, Attachment 0001), and (3) demonstrating a clear feasibility of approach.

L.5.1.5.4. Include an organizational chart depicting the IA effort and personnel relationship to the total effort to include communication, subcontracting, or outsourcing plans, if applicable.

L.5.1.5.5. Demonstrate understanding and experience in IA control design and address compliance with the DoD IA Certification and Accreditation process (DIACAP).

L.5.1.6. Resource Loading: The IMP shall also include Resource Loading by Calendar Year quarters, of the direct labor, material, subcontracts (with material and labor within the subcontracts identified) and any other allowable proposed labor and material to be incurred during the performance of tasks within that quarter. The Resource Loading may be provided a) as part of the schedule submission using Microsoft Project 2003; or b) separate from the scheduling software provided that the separate submission is in one of the other electronic formats approved by the Contracting Officer and is directly trackable to the schedule; or c) as part of or along with the cost proposal and referenced back to the schedule provided that it is directly trackable to the schedule. The Resource Loading shall track directly with the Cost Factor proposal and, for labor, shall include the labor categories direct cost labor activity (prime and team members / subcontractors).

L.5.2. Integrated Master Plan (IMP). The Offeror shall submit an Integrated Master Plan (IMP) that clearly defines the Offerors management plan for the contract. For guidance in development of the IMP, the Offeror shall use the Department of Defense, Integrated Master Plan and Integrated Master Schedule Preparation and Use Guide, Version 0.9, dated 21 October 05. The Offeror shall tailor that guidance as required for their particular approach. The IMP shall be event-based, containing the events, significant accomplishments, and accomplishment criteria needed to successfully complete the program. The following major program events shall be the minimum provided in the IMP: Preliminary Design review, Critical Design review, Contractor system fabrication, acceptance testing, and support to Government software effort and Government system testing. Other events may be included as necessary at the discretion of the Offeror. This IMP document shall be provided as separate stand alone document within the Program Management Volume and it is recommended that the IMP be submitted in no more than thirty (30) pages.

L.5.3. Integrated Master Schedule (IMS): The Offeror shall submit an IMS in Microsoft Project 2003 format, in support of the Integrated Master Plan that incorporates the IMP events, accomplishments, and criteria. It shall include the detailed tasks necessary to support the IMP criteria along with each tasks duration and its relationship with other tasks. The IMS shall clearly show predecessor and successor linkages and be aligned with the Government Overarching Contract Schedule (Section J, Attachment 0014). The IMS shall be documented in terms of days following contract award. This IMS document shall be provided as a separate stand alone document within the Program Management Volume, and should give sufficient detail to facilitiate Government assessment of schedule realism

L.6. Past Performance/Small Business Participation Volume

L.6.1. Past Performance Subfactor.

L.6.1.1. For the past performance subfactor, the Government requests that you submit information set forth below for a quantity of up to four (4) recent and relevant contracts for (i) you, and (ii) each of your proposed Significant Subcontractor(s) (as defined at L.6.1.3). These may include foreign, federal, state, local and private industry contracts. Recent includes performance of contracts occurring within approximately three (3) years of the date of issuance of this RFP. Relevant prior performance includes the following scope of work activities:

a. Development, integration, or production contracts for equipment similar in complexity and technology to the GSE development effort to include such things as, but not limited to, displays (helmet, head, visor), mobile computer, hardened portable electronics systems, man-portable communication systems and portable navigation systems;

b. System Integration development activity involving electronic components and the balancing of electronic component system size, weight and power requirements, on a human platform;

c. System Integration development activity in a classified system environment at a Secret level;

d. System Integration development activity to achieve electronics / computer / communications system reliability requirements on a human platform;

e. System Integration development and production efforts that leveraged military / commercial soldier technology;

f. Capabilities in system engineering and hardware/software development processes, practices, and configuration management;

g. Transitioning developmental programs into full rate production; and

h. System Integration development activity in the area of developing and accrediting systems comparable to the GSE. Government is specifically interested in DoD Information Assurance Certification and Accreditation Process (DIACAP) experience but DoD Information Technology Security Certification and Accreditation Process (DITSCAP) experience may be substituted if necessary. The Government is also specifically interested in successful DIACAP/DITSCAP efforts for systems comparable to the GSE.

L.6.1.2. The Offeror shall provide at least three (3) contract/subcontract references relevant to the Offerors past performance. The Government may contact the references provided. For you and each of your Significant Subcontractors recent and relevant contracts, provide the following information:

a. Contract number (and delivery order number if applicable);
b. Contract Type;
c. Dates for Period of Performance, including original delivery schedule and projected/final delivery schedule;
d. Total Value of the Contract (beginning & ending value);
e. Name/Address of customer to include:
(i) Government or commercial contracting activity address, telephone number and e-mail.
(ii) Procuring Contracting Officers (PCO) and/or Contract Specialists name, telephone number and e-mail;
(iii) Government (DCMA) or commercial Administrative Contracting Officer (ACO), Contracting Officers Representative (COR), performance certifier, and/or Quality Assurance Representative (QAR), name, telephone number and email;
f. Contract Relevance. Brief discussion of the similarities between the cited contract scope and the relevance standards identified above in L.6.1.1(a-h) particularly in the area of technical and functional relevance of the contract to the technical and IA requirements of the RFP;
g. A detailed description of scope of work requirements on contracts where possible;
h. Mission Assurance Category (MAC) and Confidentiality Level of System;
i. Accreditation Type (DIACAP, DITSCAP or other);
j. Any significant subcontracting or teaming agreements;
k. For each of the contracts listed, provide a self-assessment of contract performance. Your self-assessment must address the technical quality of the effort provided, timeliness of performance, timeliness of deliveries, and conformance with estimated costs. Include an explanation for any cost growth, schedule delays or failure to meet technical requirements, and any corrective actions, measures, or procedures to avoid such problems in the future.

L.6.1.3. Significant Subcontractors are defined as team members, partners or first or second tier subcontractors performing more than $1M or 10% of the total value of the Offeror's proposal, whichever is less.

a. With respect to the prime, submit the L.6.1.2 specified information on up to four (4) recent and relevant contracts that you propose to perform in house.

b. With respect to each Significant Subcontractor, submit the L.6.1.2 specified information on up to four (4) recent and relevant contracts performed by the subcontractor that you propose for performance by that subcontractor.

L.6.1.4. The above instructions are provided to advise Offerors as to the information required by the Government to assess the Offerors and Significant Subcontractors recent and relevant past performance. Since this information constitutes a basis of the Government's review, it is imperative that the Offeror present its past performance in a clear and complete manner.

L.6.1.5. It is recommended that Offerors submit information for the Past Performance subfactor to the Contract Specialist, Ms. Harmony Hunsanger at harmony.hunsanger@us.army.mil no later than five (5) days prior to the date for submission of proposals. The specific input required for this subfactor is as follows:

L.6.1.6. For each contract identified under L.6.1.2 above, issue a past performance questionnaire in accordance with the instructions below. Early submission of past performance information is desired.

L.6.1.7. Past Performance Questionnaire. A past performance questionnaire is provided in Section J, Attachment 16. For each of the contracts described above, the Offeror shall send a copy of the past performance questionnaire directly to the foreign, federal, state or local Government agency; private industry contracts; and Significant Subcontractors which had past performance working with them on recent and relevant requirements. Immediately upon receipt of the RFP and based on identification of your most recent and relevant customers, the Offeror shall send the questionnaire to the appropriate Contracting Officer's Representative (COR) and Procuring Contracting Officer (PCO), or other appropriate technical and contracting individuals. The Offeror shall request that these individuals complete the questionnaire and forward it electronically directly to the Government at harmony.hunsanger@us.army.mil no later than five days before the RFP closing date (See Block #9 of the SF33 cover page to this RFP). In addition, the Offeror is requested to prepare and submit to the Contract Specialist, within twenty (20) days of the Government's posting of the final RFP, a past performance matrix of the references to whom the Offeror sent the past performance questionnaires. The matrix must be sent to the Contract Specialist via email and shall contain the following information prepared in the following format:

1. Contract No./Delivery Order;
2. Contract/Delivery Order Type;
3. Program Title, including brief (200 words or less) description of work performed and an explanation of relevancy to this requirement;
4. Enter "P" if performed as a prime contractor or "S" if performed as a subcontractor;
5. Contract dollar value at time of award, present time or completion time as appropriate;
6. Percentage of effort performed as a prime or subcontractor;
7. Period of Performance for the effort;
8. Original contract delivery schedule;
9. Final or projected delivery schedule;
10. Total number of man-hours worked as a prime or subcontractor;
11. Point of Contact and Telephone Number, e-mail (PM/PCO/ACO/COR);
12. Date Questionnaire sent to the Contractor or Government Program Manager/COR.

L.6.1.8. Corporate Entities. If any contract, listed as part of the Past Performance subfactor submission, was performed by a corporate entity or division other than the corporate entity or division that would perform work under this RFP, please identify them and indicate which entity will perform this effort. If they have relocated or changed ownership since performance of the listed efforts, please describe any changes in terms of personnel, facilities, or equipment, from those expected to perform this effort. The Offeror shall also provide the above requested information for any proposed significant subcontractor. Offerors must describe in detail the work each subcontractor will perform.

L.6.1.9. Predecessor Companies. If you, or your subcontractor(s), only have relevant and recent performance history as a part of a predecessor company, we may consider that past performance in our evaluation of past performance. Please provide the information for those recent, relevant contracts of that predecessor company. Offerors must also document the history of the evolution from the predecessor company.

L.6.1.10. Contacting References. Offerors are advised that the Government may contact any of the references that the Offeror provides, may contact other third parties for performance information, and the Government reserves the right to use any information received as part of its evaluation. Offerors shall include in their proposal the written consent of their proposed subcontractors to allow the Government to discuss the subcontractor's past performance with the Offeror.

L.6.1.11. Complete Information. The Government does not assume the duty to search for data to cure problems we find in proposals. The burden of providing thorough and complete past performance information remains with the Offeror. We may assign a "higher risk" rating to your proposal, or reject your proposal, if we do not receive the information requested.

L.6.2. Small Business Participation Subfactor

This provision applies to every Offeror (U.S. large and small business and non-U.S.), regardless of size status or location of its manufacturing facility or headquarters.

L.6.2.1. All Offerors, including Offerors who are themselves U.S. small business concerns based on the NAICS code assigned to this requirement, are to identify the extent to which U.S. small business concerns would be utilized as first-tier subcontractors in the performance of the proposed contract. U.S. small business concerns are defined 1) in FAR 19.001 and 2) by the criteria and size standards in FAR 19.102 for the applicable NAICS code. U.S. Small Business concerns include small businesses (SBs), small disadvantaged businesses (SDBs), HUBZone small businesses (HUBZone SBs), woman-owned small businesses (WOSBs), veteran-owned small businesses (VOSBs), service-disabled veteran-owned small businesses (SDVOSBs) and historically black colleges/universities and minority institutions (HBCU/MIs).

L.6.2.2. If the prime Offeror (to include any U.S. small business concerns who are proposing as part of a joint venture or teaming arrangement) is itself a U.S. small business concern, the Offeror's own participation, as a SB, SDB, WOSB, VOSB, SDVOSB, HUBZone SB, and/or HBCU/MI will also be considered small business participation for the purpose of this evaluation. In this event, the extent that the prime Offeror participation as a U.S. small business concern shall be detailed, as described below, in the same manner as subcontracts to first tier U.S. small business concerns.

L.6.2.3. The required information shall be identified in a table format substantially in accordance with the following example:

BASE YEAR	BUSINESS CATEGORY	DOLLAR AMOUNT (ALL SUB-Ks)*	PERCENTAGE OF SB PARTICIPATION	TOTAL SUBCONTRACTING
	(LB + SB)	$43M	100%	
	SB	$10M	23.3%	($10M of $43M)
	SDB	$2.15M	5.0%	($2.15M of $43M)
	WOSB	$2.36M	5.5%	($2.36M of $43M)
	VOSB	$0.3M	0.7%	($0.3M of $43M)
	SDVOSB	$0.1M	0.2%	($0.1M of $43M)
	HUBZone SB	$1.0M	2.3%	($1.0M of $43M)
	HBCU/MI	$0.15M	0.4%	($0.15M of $43M)

* Guidance from filling in the table:

a. Include 1st tier subcontractors only. Note that members of a joint venture may be considered the prime or the first tier subcontractors, depending on the legal form of the joint venture as defined in its agreement document.

b. If the prime is a U.S. small business concern, detail the extent of the prime Offeror participation as a U.S. small business concern in the same manner as subcontracts to first tier U.S. small business concerns.

c. Percentages should be rounded to the nearest tenth of a percentage.

d. If a cost share arrangement is proposed, include subcontracting dollars for the proposed contract, not just for the Government share of the contract.

Additional guidance for particular Business Categories:

a. For ALL (LB, SB, etc\'85): Include ALL subcontracting, e.g., large business, small business, educational institutions, non-profit organizations, etc., in the dollars on this line.

b. For SB: Include U.S. small business concerns from all categories (i.e. SB, SDB, WOSB, HUBZone SB, VOSB, SDVOSB, and HBCU/MI) in the dollars and percentage on this line. The SDB, WOSB, HUBZone SB, VOSB, SDVOSB, and HBCU/MI are subcategories of SB and the dollars in each of these may not add to match the total dollars in the SB line due to the following: In some cases the same dollars may be reported in more than one block (i.e., a $10,000 subcontract to a small business owned by a woman that is certified by SBA as an SDB should be entered on three rows: $10,000 under SB, $10,000 under SDB, and $10,000 under WOSB). Note that the SB percentage is not simply a total of the percentages of each SB subcategory and must be calculated separately as shown in the chart.

c. For SDB: Include HBCU/MI dollars, if any, in the SDB dollars and percentage on this line.

d. For HUBZone SB: Include only SBA certified HubZone SBs. Note that this is different from some of the state HUB certifications.

If the prime Offeror IS NOT a U.S. small business concern and must submit a Small Business Subcontracting Plan, in accordance with FAR 52.219-9, with this solicitation, the Small Business Subcontracting Plan shall be consistent with the Offerors information provided in response to this paragraph.

L.6.2.4. All Offerors shall provide the names of small business concerns (including the prime Offeror if a small business concern) who would participate in the proposed contract; the small business classification of each small business concern (i.e. SB, SDB, WOSB, VOSB, SDVOSB, HUBZone SB, and /or HBCU/MI); a short description of the specific services to be provided or components to be produced by each small business concern; the complexity of the work to be subcontracted; and the estimated total dollars for each product or service. This data shall be provided in a table format substantially as follows in the example below:

BASE YEAR	Name of Small Business Concern	Small Business Classification	Description of Service/Product	Complexity (L,M,H)	Dollars
	ABC Co.	SB	Wire	Low	$0.50M
	ABC Co.	SB	Plating	Medium	$0.75M
	EFG Inc.(Prime Offeror)	SB, WOSB, VOSB	Circuit Cards	High	$1.20M

Guidance for filling in the table:

a. For SB Classification(s): List all SB classifications that apply to each concern. For Description of Service / Product: Provide enough information to substantiate the complexity level listed in the next column. Example: design and manufacture prototype widget vs. just widget.

b. Low (L) Complexity is defined as easily manufactured common pieces of hardware with low unit prices; routine, easily performed services performed by unskilled labor with low hourly rates (e.g. minimum wage rates).

c. Medium (M) Complexity is defined as hardware requiring limited integration of components or processes; services requiring skilled labor with hourly rates between $15-$20.

d. High (H) Complexity is defined as intricate assemblies with significant integration of components or processes; services requiring labor with higher education or specialized experience, with labor rates over $20 per hour.

L.6.2.5. As defined below, Offerors shall also provide the following:

L.6.2.5.1. Approach to meeting FAR 52.219-8. ALL Offerors shall substantiate their proposed approach to meeting the requirement of FAR 52.219-8. Substantiation may include providing (1) a description of the Offeror's performance, over the past three [3] calendar years, in complying with the requirements of FAR 52.219-8 (Note: if the Offeror has not performed a contract over the past three [3] years, which included FAR 52.219-8, the Offeror shall so state); (2) a description and available documentation of any methods or techniques used to promote small business participation; (3) any listings of U.S. small business concerns who are subcontracting candidates; (4) internal procedures used to monitor small business participation during contract performance; and/or (5) any other information substantiating that the Offeror will satisfy the requirements of FAR 52.219-8.

L.6.2.5.2. Compliance with FAR 52.219-9. In addition to the information in paragraph e., Offerors who ARE NOT U.S. small business concerns, as defined by the North American Industry Classification System (NAICS) code applicable to this solicitation, are to provide a description of their performance in complying with the requirements of FAR 52.219-9, including documentation of both their goals and their accomplishment of the goals established under subcontracting plans of prior contracts performed over the last three [3] calendar

years. This documentation shall include Individual Subcontracting Reports (ISRs/DD Form 294s) which list both goals and accomplishments against individual or master plans. If over the last three years, the Offeror reported accomplishments against commercial or comprehensive subcontracting plans in lieu of individual or master plans, the Offeror shall submit the plans to document the goals and the Summary Subcontract Reports (SSRs/DDForm 295s) to document the accomplishments. (Note: if the Offeror has not performed a contract over the past three [3] calendar years, which included FAR 52.219-9, the Offeror shall so state).

L.7. Cost Volume

L.7.1. Electronic spreadsheet files must be sent in Microsoft Excel 2003 format that includes all formulas, macro, computations, or equations used to compute the proposed amounts. Print image files or files containing only values are not acceptable. Supporting narrative shall be provided in Microsoft Word 2003 format using Microsoft Office XP and lower products.

L.7.2. Submission of Offers in U.S. Currency, all costs must be in U.S. dollars only, including amounts for the prime contractor and any potential subcontractors. If the basis for the proposal is any other currency, the Offeror shall:

a) State the exchange rate(s) being used to convert any currency to U.S. dollars.
b) Explain how you intend to deal with the risk that fluctuation in exchange rates may impact this prospective contract.

L.7.3. Cost and Pricing information should be provided as described below:

L.7.3.1. Provide proposed costs for each Contract Line Item Number (CLIN) and sub-CLIN in Section B of this solicitation.

L.7.3.2. For each CLIN and sub-CLIN, include a top-level spreadsheet organized by cost element (i.e. Direct Labor, Subcontracts, Material, Other Direct Costs, Overhead/Indirect, Rates, FCCM, Fee, Testing, etc.). The cost breakdown must be consistent with your cost accounting system. Provide the following information in support of each top-level spreadsheet:

L.7.3.2.1. Direct Labor. Support for costs related to direct labor shall include the following:

a) A time-phased breakout of the direct labor hours, by labor category appropriate to the Offeror's accounting system.
b) A narrative description of the method used to estimate the hours, identifying assumptions used and cost estimating relationships.
c) The labor rate for each category of direct labor, including the basis for the rate and any escalation used.

L.7.3.2.2. Cost Information from Subcontractors. For subcontracts greater than or equal to $500,000 provide cost information from the subcontractor equivalent to that required of the prime Offeror. Segregate the subcontractor cost information by CLIN and sub-CLIN, same as required of the prime Offeror's cost breakdowns. Include the evaluation of the subcontractor's submission required by FAR 15.404-3 (b), and rationale for determining that the subcontract price is reasonable and realistic. The same kind of information should be provided for inter-organizational transfers, regardless of dollar value, except you need not provide your evaluation of such cost data. Also state the type of subcontract the Offeror anticipates (e.g. firm-fixed price, cost-plus-fixed-fee, etc.)

NOTE: For the subcontracts above, if the subcontract is for purchased material and you can demonstrate that the subcontract item is either commercial or based on adequate price competition, cost information from the subcontractor is not required. Instead, provide copies of competitive subcontractor price quotes, or the kind of information noted in FAR 52.215-20(a)(1)(ii).

L.7.3.2.3. Submit Cost Information from Subcontractors whose total cost is less than $500,000 or 5% of the total value of the Offerors proposal, whichever is less. Provide a narrative that explains the method used to develop proposed cost for material and subcontracts less than $500,000 or 5% of the total value of the Offerors proposal, whichever is less, including information about the extent to which the cost is based on vendor quotes, purchase order history, estimates, etc. Indicate whether the amount includes upward or downward adjustments for contingencies or negotiation challenges.

L.7.3.2.4. Material: For each item with a material cost (purchase price to Offeror) greater than $5,000 for any CLIN and sub-CLIN, provide the following information:

(1) Item Name/Description/Part Number/Vendor, as applicable
(2) Unit Cost (purchase price to Offeror)
(3) Quantity used
(4) Extended Cost (unit cost multiplied by quantity used)
(5) Basis for cost (engineering estimate, vendor quote, purchase history, etc.)
(6) Indicate whether component is sole-source, competitive, or commercial

All Other Material: State the total amount of material costs for all items not expected to exceed $5,000.

L.7.3.2.5. Other Direct Costs. Depending on your accounting system, this may include costs such as computing charges, travel, etc. Identify each category of proposed Other Direct Cost, and the dollar amount for each category. Provide a brief explanation of what is included in each category and how the cost was estimated.

L.7.3.2.6. Rates. Provide a list of the direct and indirect rates, by category and by year (or Quarter), used in the development of the proposal and include:

a. The date of the current Cost Accounting Standards Board (CASB) Disclosure Statement.
b. The effective date of the rates or the data that formed the basis for the rates (the date of the burden study analysis or payroll run, etc.), and state whether or not the rate package has been submitted to DCAA for review.
c. The ending month for the Offeror's fiscal year.
d. A narrative explaining the basis for the estimated rates. Specifically identify any escalation factors used.

L.7.3.2.7. Facilities Capital Cost of Money (FCCM): The Offeror shall state the total amount estimated for FCCM and identify the Treasury Rate used to develop the amount.

L.7.3.2.8. Fee. State the fee rate and the total dollar amount included.

L.7.3.2.9. Provide a time-phased Basis of Estimate (BOE). The BOE must provide a description of the work to be performed, the resources required (material, labor, ODC, subcontracts, etc.) and the rationale for how the quantity of resources was developed. Include a BOE, for prime and subcontractors, for the following Work Breakdown Structure (WBS) elements (derived from Attachment 007), as listed below:

a. 1.1.1.1 Displays (and sub-WBS elements)
b. 1.1.1.2.2 Battery Connector Cables with Connectors
c. 1.1.1.3 Computer (and sub-WBS elements)
d. 1.1.1.4 Navigation Component (and sub-WBS elements, excluding 1.1.1.4.1.1)
e. 1.1.1.5.1.2, 1.1.1.5.2.2, 1.1.1.5.2.3, 1.1.1.5.3.2, 1.1.1.5.3.3 Radio (Antenna & Cables)
f. 1.1.1.6 System Controller (and sub-WBS elements)
g. 1.1.1.7 Personal Area Network (and sub-WBS elements)
h. 1.1.1.8 Headset (and sub-WBS elements)
i. 1.1.2.1 GSE Secure Operating System
j. 1.1.3 Integration, Assembly, Test and Checkout
k. 1.3 System Engineering / Program Management
l. 1.4 System Testing and Evaluation
m. 1.5 Training
n. 1.6 Data
o. 1.7.5, 1.7.6, 1.7.7, 1.7.8, 1.7.9, 1.7.10.4 Peculiar Support Equipment (and sub-WBS elements)

The BOEs shall correspond to the Resource Loading data the Offeror provides in accordance with the Program Management Volume, per paragraph L.5.1 in the solicitation.

L.7.3.2.10. Time-Phased Breakdown. Provide a time-phased (and totaled by quarter) breakdown of the costs and fee in the top-level spreadsheet. The direct costs within this time-phased breakdown shall track directly with the Resource Loading data the Offeror provides in accordcance with the Program Management Volume, per paragraph L.5.1 in the RFP.

L.7.3.2.11. Supporting data and rationale shall be in sufficient detail to enable the Government to evaluate the realism of the Offeror's proposed costs.

L.7.3.2.12. Cost Accounting System: In order to be considered for award, the Offeror must provide evidence that it has adequate financial management and fund tracking procedures to accommodate a cost-reimbursement type contract. This evidence may include a letter from either DCMA or DCAA that states that the Offeror has an acceptable accounting system for this type of contract. If an accounting system has not been determined to be adequate by DCMA or DCAA, the Offeror shall coordinate with the PCO to obtain an accounting system review prior to submitting a proposal.

L.7.4. Cost Sharing. A cost sharing arrangement is not a requirement for award of this RFP. However, if your offer is based on a cost sharing arrangement, describe in detail the cost sharing arrangement proposed, including its nature, amount and accounting treatment. Cost proposals shall include the total estimated costs incurred by the Offeror to perform the technical approach, regardless of cost sharing. The cost and pricing information required by this section [the cost information and breakdown] shall be provided for the total cost of the effort, the Government share, and the Contractor's share. The Offeror shall also discuss how the cost sharing impacts the technical data and computer software rights asserted by the Offeror. Also note that per FAR 16.303, a contractor receives no fee in a cost-sharing contract.

L.8. Proposal Terms and Conditions

L.8.1. Include a scanned image of a signed copy of the SF33 cover page, and a copy of completed fill-ins required by the RFP. ORCA certifications need not be separately submitted.

L.8.2. A statement specifying agreement with all terms, conditions, and provisions included in the RFP or any exceptions. Any exceptions taken to the attachments, exhibits, enclosures, or other RFP terms, conditions, or documents must be fully explained; however, any such exceptions may be grounds for the Contracting Officer to reject the proposal from further consideration in the source selection process, before initial evaluation.

L.8.3. Submit Joint Certification Program (JCP) numbers and facility clearance information for the Offeror and subcontractor(s) that will be involved in the review of the GSE limited distribution documents that have been distributed via the AMRDEC Safe File Exchange website or involved in the testing of the GSE system.

L.8.4. Offerors, other than US Small Businesses, as defined by the North American Industry Classification System (NAICS) code applicable to this RFP, shall submit an acceptable subcontracting plan in accordance with Department of Defense FAR Supplement (DFARS).

L.8.5. In accordance with the DFARS, identify and assert any and all restrictions on the Governments Use, Release or Disclosure of technical data and computer software rights.

L.8.6. Offerors are advised that an employee of the not-for-profit The MITRE Corporation (information identified below) may serve as an evaluator in the source selection process. This individual will be authorized access only to those portions of the proposal data and discussions that are necessary to enable them to perform their respective duties. The MITRE Corporation is expressly prohibited from competing on the subject acquisition. The contact information is the following:

The MITRE Corporation
202 Burlington Road
Bedford, MA 01730
Phone: (781) 271-2000

In accomplishing their duties related to the source selection process, The MITRE Corporation may require access to proprietary information contained in the Offerors proposals. To expedite the evaluation process, each Offeror must 1) contact The MITRE Corporation to effect execution of an agreement referenced below prior to the submission of proposals or 2) submit a written statement indicating its consent to having an employee of The MITRE Corporation perform duties as an evaluator in the source selection process and authorizing such employee access to proprietary information. As stated above, pursuant to FAR Part 9.505-4, The MITRE Corporation must execute an agreement with each Offeror that states that they will (1) protect the Offerors information from unauthorized use or disclosure for as long as it remains proprietary and (2) refrain from using the information for any purpose other than that for which it was furnished. Each Offeror shall submit copies of the agreement or written statement to the Contracting Officer by 30 Jan 2009.**

L.9 Organizational Conflict of Interest.

L.9.1. The provisions of FAR 9.5, "Organizational Conflict of Interest" (OCOI), applies to any award under this RFP. Potential Offerors should review their current and planned participation in any other Government contracts, subcontracts, consulting, or teaming arrangements where they may be in a position of actual or perceived bias or unfair competitive advantage. A common example with the potential for OCOI is where an entity performs work both as a system contractor/subcontractor and as a Government support contractor for Government offices involved in GSE or Land Warrior programs.

L.9.2. Offerors should disclose any potential OCOI situations to the Contracting Officer as soon as identified including prior to proposal submission. The disclosure should include the facts and an analysis of the actual or perceived conflict and a recommended approach(es) to neutralize or mitigate the potential conflict. The preferred approach to potential conflicts is to negate/obviate the conflict. Mitigation is considered only if it is not practical to negate/obviate the conflict. The Contracting Officer will promptly respond to resolve any potential conflicts.

** Revised by Amendment 0001

*** END OF NARRATIVE L0001 ***

ERRATA Sheet of Changes to GSE System Performance Specification (SPS) was issued via AMRDEC Safe File Exchange on 16 JAN 2009.

ERRATA Sheet of Changes to GSE Interface Control Document (ICD) was issued via AMRDEC Safe File Exchange on 16 JAN 2009.